

CHAPTER 6

International Comparisons of Education

This chapter offers a broad perspective on education across the nations of the world. It also provides an international context for examining the condition of education in the United States. Historically, the National Center for Education Statistics (NCES) was not active in collecting international data, but recently NCES has expanded its role by serving as the national research center for the International Association for the Evaluation of Educational Achievement (IEA) Reading Literacy Study and funding international research studies comparing mathematics and science education. These studies include the Third International Mathematics and Science Study (TIMSS) and the Second International Assessment of Educational Progress, which provides comparative data for 9- and 13-year-olds. In addition, NCES is cooperating with international agencies in the compilation of statistics and the development of education indicators.

The data in this chapter were drawn from material prepared by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the Institute of International Education, the Organization for Economic Cooperation and Development (OECD), and the International Assessment of Educational Progress (IAEP). The basic summary data on enrollments, teachers, enrollment ratios, and finances were synthesized from information appearing in *Education at a Glance* published by OECD. Even though OECD tabulations are very carefully prepared, international data users should be cautioned about the many problems of definition and reporting involved in the collection of data about the educational systems in the world.

This chapter provides information from the International Assessment of Educational Progress (IAEP), sponsored by the Educational Testing Service (ETS), the U.S. Department of Education and the National Science Foundation. The mathematics and science performance of 13-year-old students in 20 countries, and 9-year-old students in 14 countries, was studied through assessments administered during 1990–91. Some countries assessed nationally representative samples of the two age groups; others limited their assessments to specific geographic areas or language groups.

A different perspective is provided by data on the enrollment of foreign students in U.S. institutions of higher education. These data from the Institute of International Education provide information on the number of foreign students and their countries of origin.

Further information on survey methodologies is in the “Guide to Sources” in the appendix and in the publications cited in the source notes.

Population

The percent of young people in a population can influence the proportion of national income allocated to each student. Countries with a greater proportion of young people must set aside larger proportions of domestic product for their education. Among the OECD countries, Turkey has by far the largest percentage of young people ages 5 to 13 at 19.9 percent. The closest followers are Ireland at 17.2 percent, and Portugal at 13.7 percent. Countries with relatively small numbers of persons in this age group include Germany at 8.9 percent, and Denmark at 9.9 percent. The proportion of 5- to 13-year-olds in the U.S. was 12.8 percent, which was higher than most other OECD countries (table 386).

Enrollments

In 1993, over 1 billion students were enrolled in schools around the world. Of these students, 622 million were in elementary-level programs, 341 million were in secondary programs, and 78 million were in higher education programs (table 388).

Between 1980 and 1993, enrollments grew rapidly, particularly in the less developed areas of the world. Elementary enrollment changes ranged from increases of 38 percent in Africa and 22 percent in Central and South America to a 3 percent decrease in Europe.

Enrollment increases at the secondary level were more dramatic, especially in Africa (97 percent), Central and South America (43 percent) and Asia (38 percent). Secondary-level enrollment decreased in Europe by 3 percent and in Northern by 4 percent (U.S., Canada, and Greenland).

Pupil/teacher ratios in elementary and secondary schools vary widely from country to country. Devel-

oped countries with relatively low elementary ratios in 1992 were Italy and Denmark (10.9). Countries with relatively high ratios included Ireland (25.6) and the Netherlands (23.6) (table 390).

At the postsecondary level, Africa (124 percent) and Asia (118 percent) had the largest increases followed by Oceania (88 percent) and Central and South America (66 percent). These postsecondary increases are a result of large growth in the school attendance rates and sizable rises in population (table 388). Enrollment rates varied among countries partially due to differing definitions of postsecondary education and what age it begins. In 1991, among the OECD countries, the United States had the largest proportion of 18- to 21-year-olds enrolled in postsecondary education at 36.4 percent, followed by Belgium (30.4 percent) and Canada (29.7 percent). For the 22 to 25 age group, Norway's enrollment is highest at 18.9 percent, Denmark follows at 18.3 percent, and the United States is third at 16.7 percent. Ireland had an enrollment rate of 4 percent (table 387).

In 1994–95 there were 453,000 foreign students studying at U.S. colleges and universities. This was 3,000 more than the year before, or a 1 percent increase. Approximately 58 percent of the students were from South and East Asian countries (table 408).

Education Systems

Of the 20 countries which participated in the 1991 International Assessment of Educational Progress (IAEP), 16 have national curricula. Only Canada, Switzerland, and Brazil join the United States in having state or provincial control of education. For the countries participating in the assessment, the average length of the school year ranged from approximately 172 days in Portugal to approximately 251 days in China. The average amount of instruction per school day varied from under 4 hours in Hungary and Fortaleza, Brazil, to a little over 6 hours in France (table 392).

Achievement

Mathematics

In the 1991 IAEP mathematics assessment of 9-year-olds from 10 nations that tested nationally representative populations, students from Korea, Hungary, Taiwan, the (former) Soviet Union, and Israel all had average test scores that were significantly higher than those from the United States. In the assessment of the 13-year-old students in which 15 nations tested nationally representative populations, the average test scores of U.S. students were higher than only one country, Jordan. There was no significant difference between the test scores of U.S. stu-

dents and those of students from Slovenia and Spain. The remaining 10 countries all had average test scores that were significantly higher than those of U.S. students (tables 393 and 395).

An analysis of the 1991 IAEP scores on different mathematics topics reveals that U.S. 9-year-old students scored well in the area of data analysis, statistics, and probability. In this area, the average test score of the U.S. 9-year-olds was the same or higher than students in all the other countries which tested comprehensive populations, except for Korea. The U.S. 13-year-olds' average test score in data analysis, statistics, and probability was lower than those of the students in many of the countries testing comprehensive populations. The exceptions were Spain, Slovenia, and Jordan, where the test scores were lower than those of the U.S. 13-year-olds (tables 394 and 396).

Science

In the 1991 IAEP science assessment of 9-year-olds, 10 nations tested nationally representative populations. The average science scores of U.S. students were significantly lower than those of Korean students, but about the same as students from Taiwan, Canada, Hungary, Spain and the (former) Soviet Union. The IAEP assessment of 13-year-old science students involved 14 nations testing nationally representative populations. Students from 7 of the participating nations had average science scores that were higher than those of U.S. 13-year-old students, 4 had scores that were about the same, and 2 countries, Ireland and Jordan had lower scores. (Note: In this international assessment of education, the standard errors are relatively large. In the interest of allowing for meaningful comparisons between countries, the IAEP tables in the *Digest of Education Statistics* list standard errors) (tables 398 and 399).

When the results of the 1991 IAEP science assessments are analyzed by subject matter, U.S. 9-year-olds excelled in the earth and space sciences. In this area, U.S. students had average test scores that were significantly higher than their counterparts in Korea and Taiwan, but about the same as Hungary (tables 397).

Geography

On a 1991 International Assessment of Educational Progress in geography, students from Hungary performed at a significantly higher level on the 24 geography items than their counterparts from the other eight countries in the study (Canada, Ireland, Korea, Scotland, Slovenia, the former Soviet Union, Spain, and the United States (table 391).

Reading

On a reading literacy assessment of 9- and 14-year-olds in 32 countries, students in Finland were among the best readers at both levels. Students in the United States produced relatively high scores at the 9-year-old level. Among the 14-year-olds, students in the United States also scored in the high performing group, along with students from France, Sweden, New Zealand, Hungary, Iceland, Switzerland, and Hong Kong. American students performed considerably better at the 9-year-old level relative to the other participating countries than at the 14-year-old level (tables 401 and 402).

Degrees

Ratios of bachelor's degrees conferred per hundred 22- or 23-year-olds in 1992 ranged from 6 in Turkey and 7 in Austria and Finland to 32 in Canada and 27 in the United States. Over 50 percent of all bachelor's degrees were awarded to women in Australia, Canada, Denmark, the Netherlands, New Zealand, Norway, Spain, Sweden, and the United States (table 403).

Countries have been paying more attention lately to the percent of graduates in the math and science fields. For undergraduate degrees awarded in science, math and computer science, and engineering, most OECD countries report rates from 15 to 35 percent. Finland, Belgium, and Germany all are over

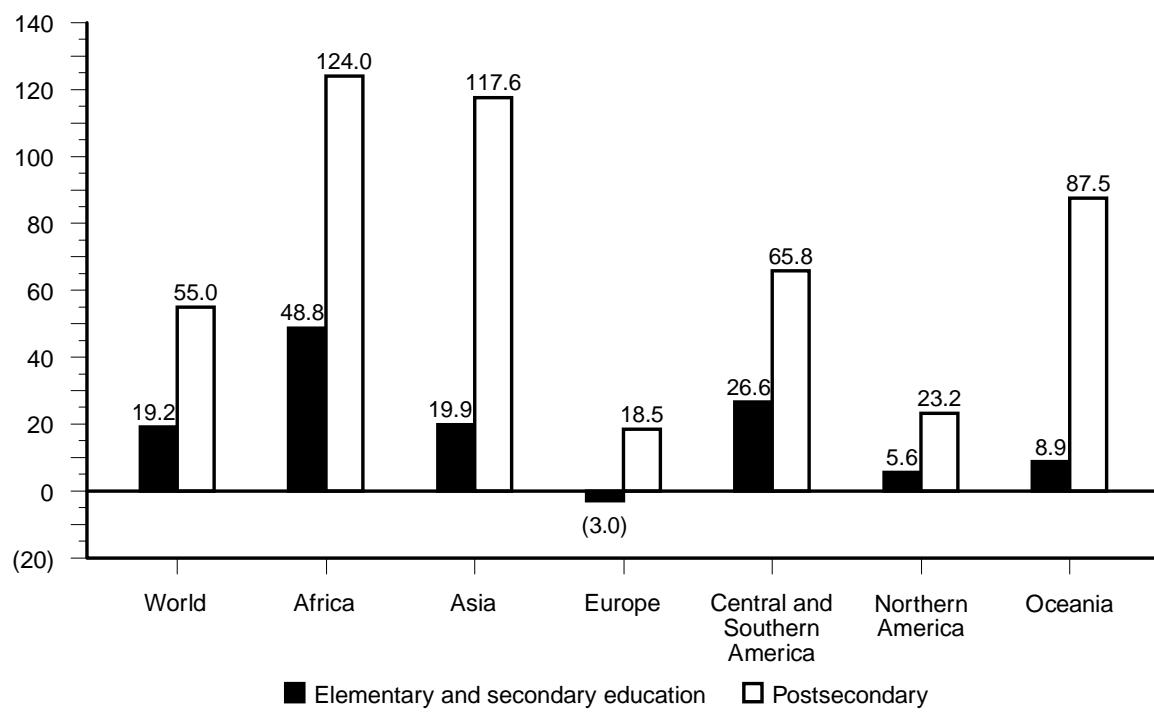
30 percent, while Spain and Canada are closer to 15 percent. The proportion of graduate degrees in math and science ranged even wider. Among the countries with the highest proportions were Japan (54 percent), Sweden (44 percent), and Austria (37 percent). Among the countries with the lowest proportions were the United States (14 percent), Australia (14 percent), and New Zealand (19 percent) (tables 404 and 405).

Finances

In general, higher income countries have a larger expenditure per student than lower income countries. At both primary and secondary levels of education, Norway, Sweden, and the United States ranked at the upper end. For primary education, Sweden spent \$4,840 per student and the United States spent \$5,600, and for secondary education, Austria, Norway, Sweden, and the United States had expenditures over \$6,000 per student. Switzerland, United States, Japan, and the United Kingdom spent relatively large amounts per student in higher education, with each having expenditures per student over \$10,000 (table 406).

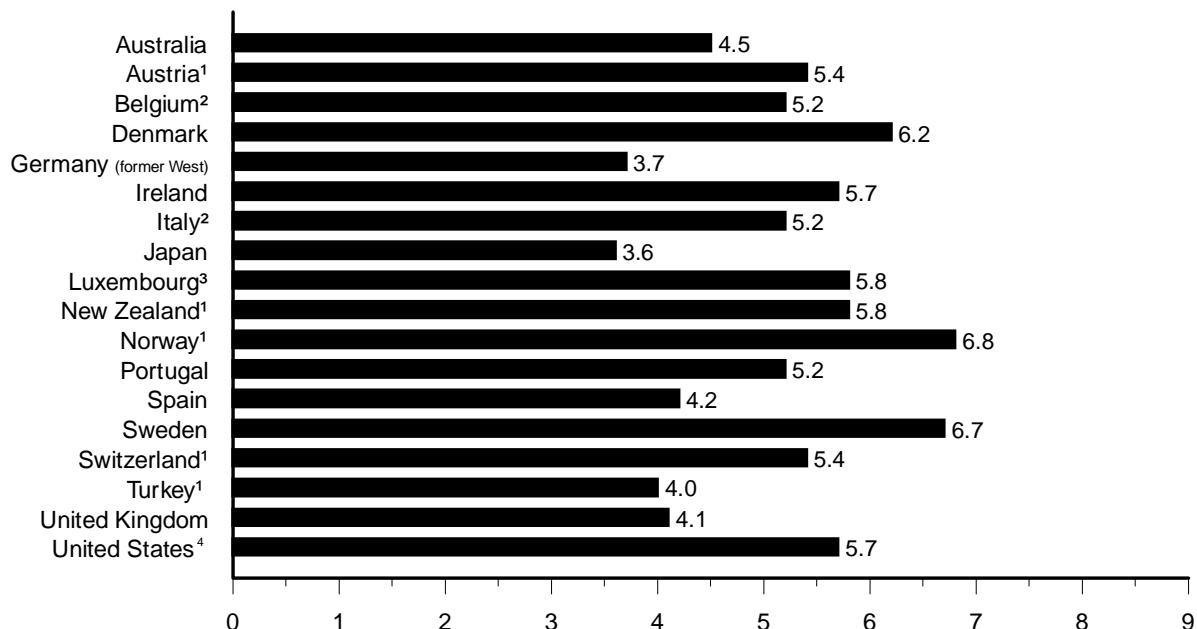
A comparison of public expenditures on education as a percent of gross domestic product (GDP) in OECD countries shows that national investment in education ranged from 3.6 percent of GDP in Japan to 6.7 percent in Sweden (table 407).

Figure 27.-Percentage change in enrollment, by area of the world and level of education: 1980 to 1993



SOURCE: United Nations Educational, Scientific, and Cultural Organization, Paris, *Statistical Yearbook*, various years.

Figure 28.-Public expenditures for education as a percentage of gross national product: Selected countries, 1992



¹ 1991 data.

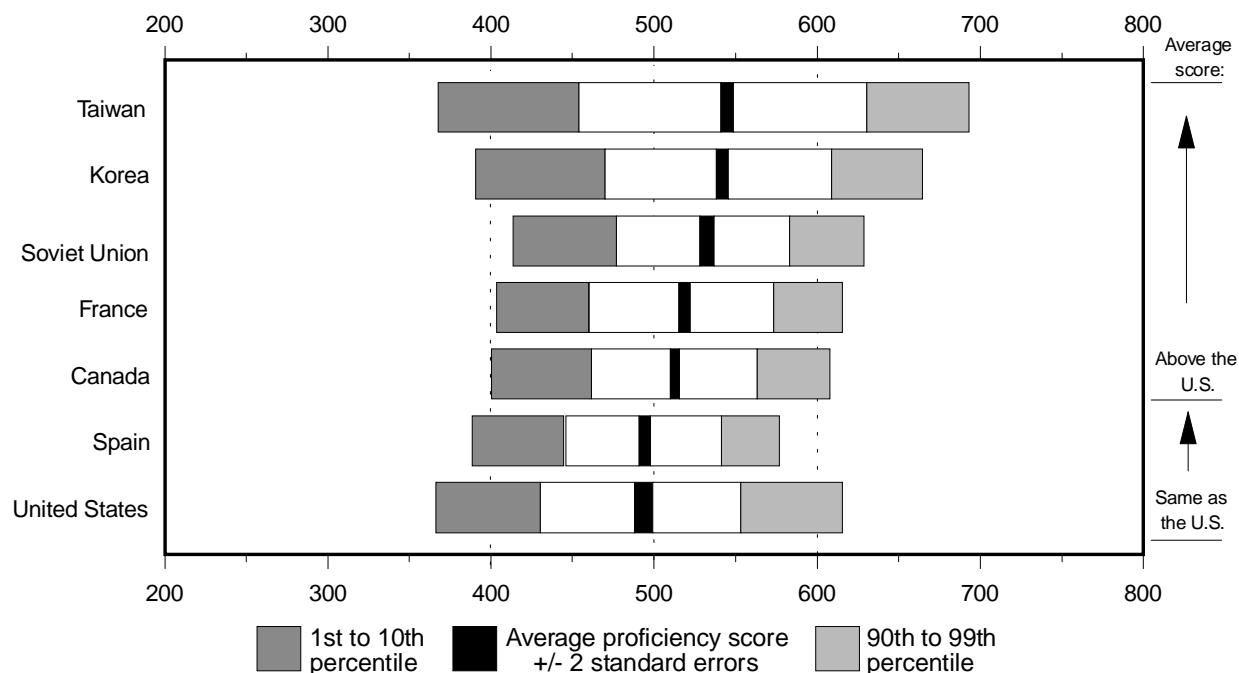
² 1990 data.

³ 1989 data.

⁴ Excludes preprimary data.

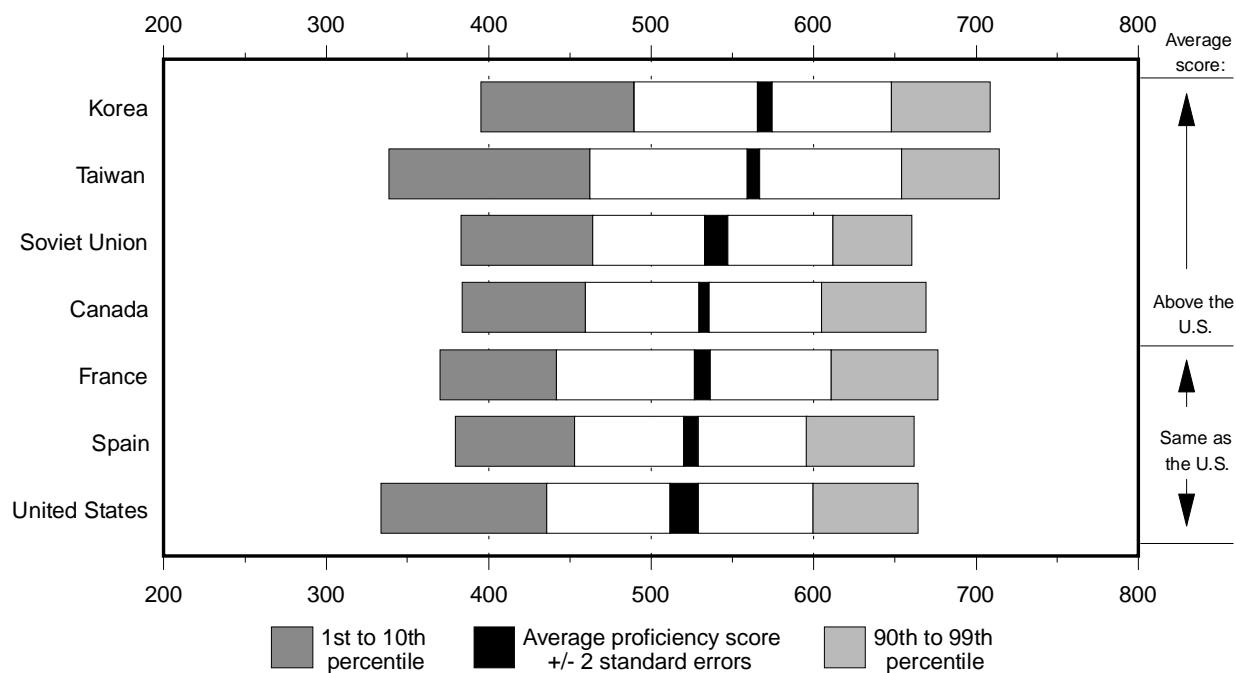
SOURCE: Organization for Economic Cooperation and Development, *Education at a Glance*, and unpublished data.

Figure 29.-Distribution of mathematics proficiency scores of 13-year-olds, by country: 1991



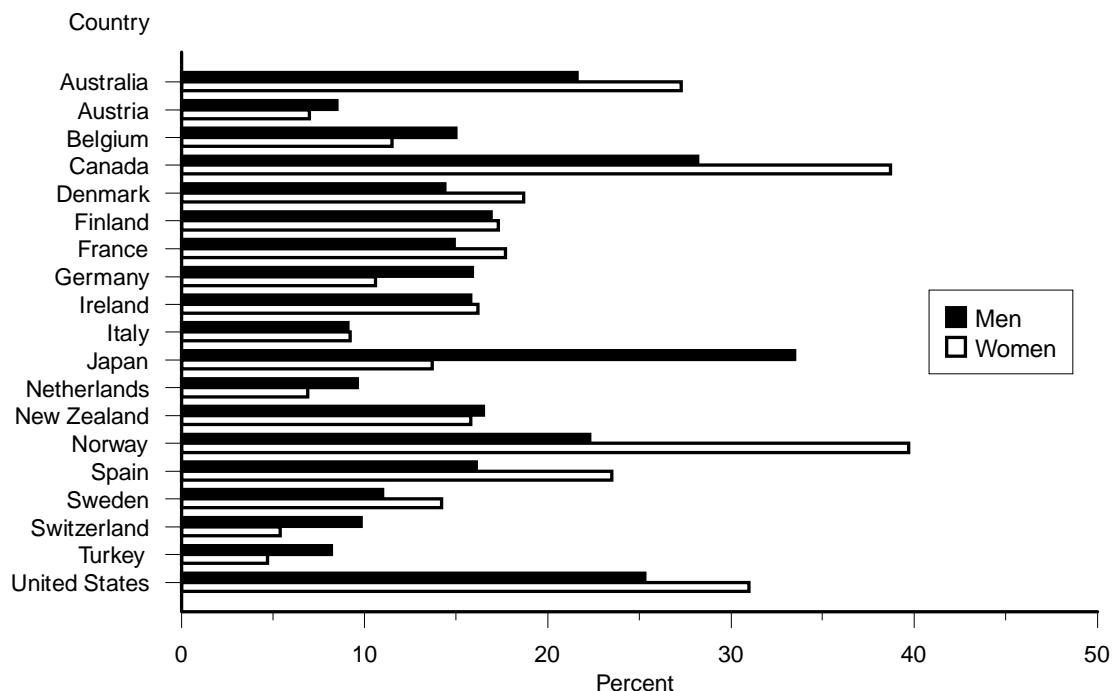
SOURCE: Educational Testing Service, International Assessment of Educational Progress, unpublished tabulations, 1992.

Figure 30.-Distribution of science proficiency scores of 13-year-olds, by country: 1991



SOURCE: Educational Testing Service, International Assessment of Educational Progress, unpublished tabulations, 1992.

Figure 31.-Bachelor's degree recipients as a percent of population in the appropriate age group for selected countries, by sex: 1991



SOURCE: Organization for Economic Cooperation and Development, unpublished data.

Table 386.—School-age populations as a percent of total population: Selected countries, 1985, 1990, and 1991

Country	5- to 13-year-olds as a percent of total population			14- to 17-year-olds as a percent of total population		
	1985	1990	1991	1985	1990	1991
1	2	3	4	5	6	7
Australia	14.5	13.1	13.0	6.6	6.4	6.1
Austria	10.9	10.4	10.5	6.4	5.1	4.9
Belgium	11.4	10.9	10.9	5.8	5.1	4.9
Canada	12.8	12.4	12.5	6.1	5.5	5.5
Denmark	12.0	10.1	9.9	5.8	5.7	5.5
Finland	11.5	11.8	11.6	5.6	4.9	5.0
France	12.8	12.1	12.1	6.2	5.8	5.5
Germany (former West)	9.1	8.7	8.9	6.1	4.1	4.0
Greece	—	—	—	—	5.5	—
Iceland	15.7	15.0	—	6.7	6.8	—
Ireland	17.9	17.5	17.2	7.7	8.0	7.7
Italy	12.7	10.3	10.1	6.5	6.0	5.9
Japan	14.0	11.8	11.5	6.2	6.5	6.4
Luxembourg	10.2	10.1	—	5.5	4.4	—
Netherlands	12.0	10.7	10.7	6.8	5.4	5.1
New Zealand	15.3	13.5	13.4	7.5	6.7	6.4
Norway	12.5	11.0	11.0	6.4	5.8	5.5
Portugal	15.3	14.3	13.7	6.9	6.8	6.9
Spain	15.0	12.9	12.4	6.8	6.8	6.7
Sweden	11.3	10.2	10.2	5.4	5.2	5.0
Switzerland	10.6	10.1	10.1	5.8	4.8	4.7
Turkey	20.6	20.6	19.9	8.7	8.9	8.9
United Kingdom	11.4	11.1	11.3	6.3	5.2	4.9
United States	12.6	12.8	12.8	6.2	5.4	5.3

—Data not available.

SOURCE: Organization for Economic Cooperation and Development, *Education at a Glance*, and unpublished data. (This table was prepared May 1995.)**Table 387.—Percent of population enrolled in secondary and postsecondary institutions, by age group: Selected countries, 1985, 1990, and 1991**

Country	Secondary schools, 14 to 17 years old			Postsecondary institutions								
	1985	1990	1991	18 to 21 years old			22 to 25 years old			26 to 29 years old		
				1985	1990	1991	1985	1990	1991	1985	1990	1991
1	2	3	4	5	6	7	8	9	10	11	12	13
Australia	—	—	91.4	—	—	28.9	—	—	11.6	—	—	7.6
Belgium	91.7	—	94.6	24.5	—	30.4	7.2	—	9.1	1.5	—	1.7
Canada	92.5	95.8	94.0	25.5	28.9	29.7	9.5	11.4	12.2	3.0	3.4	3.5
Denmark	89.9	90.0	90.0	7.4	7.4	8.2	16.3	17.9	18.3	8.2	9.3	9.5
Finland	89.8	98.2	—	9.3	13.6	—	17.3	20.7	—	7.9	10.2	—
France	93.0	95.1	95.4	19.4	24.6	26.6	10.0	11.8	12.7	4.3	3.9	4.0
Germany (former West)	94.7	94.2	93.6	8.8	8.5	9.1	15.5	15.9	16.3	8.9	10.4	10.6
Ireland	83.6	87.2	89.7	15.2	20.3	20.5	2.8	4.3	4.3	—	—	—
Japan	95.7	95.7	96.1	—	—	—	—	—	—	—	—	—
Netherlands	93.0	92.5	92.7	14.4	17.9	19.1	11.9	13.4	14.5	5.7	4.7	4.7
New Zealand	74.4	84.2	88.4	14.9	20.8	23.2	9.6	13.8	16.1	—	—	—
Norway	90.0	93.2	93.5	8.6	13.6	14.5	13.9	17.4	18.9	6.2	7.4	8.2
Portugal	—	—	69.1	5.8	—	11.3	5.4	—	6.6	2.3	—	2.2
Spain	67.3	79.1	81.6	14.9	21.2	21.5	10.6	13.5	14.2	4.0	4.5	5.3
Sweden	91.3	91.4	91.6	7.9	8.7	9.3	11.3	11.4	11.8	6.5	6.1	6.2
Switzerland	88.9	89.8	90.0	5.7	6.4	6.6	10.6	12.1	12.8	5.2	6.4	7.0
Turkey	—	32.6	33.9	—	7.4	7.9	—	4.6	4.9	—	2.3	2.1
United Kingdom	77.7	83.3	84.2	—	16.1	17.6	—	4.7	6.2	—	—	3.4
United States ¹	92.1	92.9	92.9	33.0	36.2	36.4	14.5	17.1	16.7	8.2	8.5	9.1

¹ Postsecondary includes higher education only.

—Data not available.

SOURCE: Organization for Economic Cooperation and Development, *Education at a Glance*, and unpublished data. (This table was prepared May 1995.)

Table 388.—Selected statistics for countries¹ with populations over 10 million, by continent: 1980, 1990, and 1993

Country	Population in millions			Persons per square kilometer in 1993	First level ²						
	1980	1990	1993		Enrollment in thousands			Enrollment ratio ⁶			
					1980	1990	1993	1980	1990	1993	
1	2	3	4	5	6	7	8	9	10	11	
World total⁷	4,444.4	5,284.8	5,543.6	41	539,471	593,177	622,059	95	99	99	
Africa											
Algeria ⁸	18.7	24.9	26.7	11	3,119	4,189	9,436	94	100	9103	
Angola	7.0	9.2	10.3	8	1,301	990	—	175	91	—	
Cameroon	8.7	11.5	12.5	26	1,379	1,964	1,824	98	101	87	
Côte D'Ivoire	8.2	12.0	13.3	41	1,025	1,415	1,554	79	71	69	
Egypt ⁸	43.7	56.3	60.3	60	4,663	6,964	7,732	73	94	97	
Ethiopia	36.4	47.4	51.9	945	2,131	2,466	9,1856	34	31	923	
Ghana	10.7	15.0	16.4	69	16,1,378	1,945	—	80	77	—	
Kenya ⁸	16.6	23.6	26.4	45	3,927	5,392	5,643	115	95	91	
Madagascar ⁹	9.1	12.6	13.9	24	1,724	1,571	1,505	136	87	73	
Morocco	19.4	24.3	25.9	58	2,172	2,484	9,2,728	83	67	973	
Mozambique ⁸	12.1	14.2	15.1	19	19,1,387	1,260	1,227	99	66	60	
Nigeria ⁸	72.0	96.2	105.3	114	13,760	13,777	9,15,870	119	86	993	
South Africa	29.2	37.1	39.7	32	12,24,4,737	6,952	22,5,758	12,103	109	111	
Sudan ⁸	18.7	24.6	26.6	11	1,464	2,043	—	50	50	—	
Uganda	13.1	17.9	19.9	85	23,1,292	23,2,470	23,2,456	23,50	23,70	23,67	
United Republic of Tanzania	18.6	25.6	28.0	32	24,3,368	24,3,379	24,3,737	93	70	70	
Zaire	27.0	37.4	41.2	18	4,196	4,562	4,939	92	70	68	
Zimbabwe	7.1	9.9	10.7	27	1,235	2,116	2,376	85	116	119	
Asia											
Afghanistan ⁸	16.1	15.0	17.7	27	1,116	13,726	787	34	13,25	31	
Bangladesh	88.2	108.1	115.2	800	8,240	11,940	—	61	79	—	
China ⁸	998.9	1,155.3	1,196.4	125	146,270	122,414	124,212	113	127	118	
India	688.9	850.6	901.5	274	73,873	99,118	108,201	83	98	102	
Indonesia	151.0	182.8	191.7	101	25,537	29,754	9,29,599	107	115	9,114	
Iran, Islamic Republic of ⁸	39.3	58.9	64.2	39	4,799	9,370	9,863	87	110	105	
Iraq	13.0	18.1	19.5	44	2,616	3,328	9,2,857	113	111	991	
Japan	116.8	123.5	124.5	330	11,827	9,373	8,769	101	100	102	
Kazakhstan	14.9	16.7	17.0	6	—	1,227	—	—	—	86	
Korea, North (DPR)	18.3	21.8	23.0	191	—	21,1,543	—	—	21,104	—	
Korea, South (Republic of)	38.1	42.9	44.1	445	5,658	4,869	29,4,099	110	105	29,98	
Malaysia	13.8	17.9	19.2	58	2,009	2,456	2,719	93	93	93	
Myanmar (former Burma)	33.8	41.8	44.6	66	4,148	5,385	—	91	105	—	
Nepal ⁸	14.9	19.3	20.8	148	1,068	2,789	9,3,035	84	103	9,109	
Pakistan	85.3	121.9	132.9	167	19,5,474	19,8,856	—	39	44	—	
Philippines	48.3	60.8	64.8	216	20,8,518	10,427	29,10,899	112	113	29,111	
Saudi Arabia	9.6	16.0	17.1	8	927	1,877	9,2,026	61	73	975	
Sri Lanka ⁸	14.8	17.2	17.9	273	2,081	2,112	2,013	103	105	106	
Syrian Arab Republic	8.7	12.3	13.7	74	1,556	2,452	2,625	100	109	105	
Thailand ⁸	46.7	55.6	57.6	112	7,393	6,957	9,6,758	99	99	9,98	
Turkey	44.4	56.1	59.6	76	5,656	6,862	9,6,708	96	110	9,103	
Uzbekistan	15.9	20.4	21.9	49	—	1,853	—	—	—	80	
Vietnam ⁸	53.7	66.7	71.3	215	7,887	8,862	9,725	109	103	111	
Yemen	8.2	11.3	13.2	25	703	32,1,671	—	33,65	33,88	—	
Europe											
Belarus	9.6	10.2	10.2	49	750	615	635	104	95	96	
Czechoslovakia (former) ⁸	15.3	15.6	15.6	—	1,904	1,924	35,867	92	94	—	
Czech Republic	10.3	10.3	10.3	—	—	546	521	—	96	99	
Slovakia	5.0	5.3	5.3	—	—	—	346	—	—	101	
France	53.9	56.7	57.5	104	4,610	4,149	4,061	111	108	106	
Germany ³⁶	78.3	79.4	80.9	227	3,636	3,431	3,524	—	101	97	
Greece	9.6	10.2	10.4	79	901	813	—	103	98	—	
Hungary	10.7	10.4	10.2	110	1,162	1,131	1,009	96	95	95	
Italy	56.4	57.0	57.1	190	4,423	3,056	2,863	100	97	98	
Netherlands ⁸	14.1	15.0	15.3	374	1,333	1,082	9,1,046	100	102	9,97	
Poland	35.6	38.1	38.3	118	4,167	5,189	5,194	100	98	98	
Romania	22.2	23.2	23.0	97	3,237	1,253	9,1,201	102	91	9,86	
Russian Federation	138.5	147.9	147.8	9	6,009	7,596	29,7,849	102	109	29,109	
Spain	37.5	39.3	39.5	78	3,610	2,820	2,448	109	107	104	
Ukrainian S.S.R.	50.0	51.6	51.6	85	3,595	3,991	2,659	102	89	87	
United Kingdom	56.3	57.4	57.9	237	4,911	4,533	9,39,5,023	103	104	9,39,112	
Yugoslavia, Federal Republic	9.5	10.2	10.6	—	467	—	—	72	92	9,72	
North America											
Canada	24.6	27.8	28.8	3	2,185	2,340	9,2,438	99	101	9,105	
Cuba ⁸	9.7	10.6	10.9	98	1,469	888	983	106	99	104	
Mexico	67.1	84.5	90.0	46	14,666	14,402	14,469	122	115	112	
United States ⁴¹	227.2	249.4	257.8	28	21,076	22,392	23,212	101	104	104	
South America											
Argentina	28.1	32.5	33.8	12	3,917	25,4,999	4,990	106	25,108	107	
Brazil ⁸	121.3	148.5	156.5	18	22,598	28,944	9,30,106	99	109	9,111	
Chile	11.1	13.2	13.8	18	2,185	1,991	2,066	109	100	98	
Colombia	26.5	32.3	34.0	30	4,168	4,247	4,599	124	110	119	
Ecuador	8.0	10.3	11.0	39	1,534	1,846	9,1,987	117	116	9,123	
Peru	17.3	21.6	22.9	18	3,161	3,855	29,4,030	114	118	119	
Venezuela	15.1	19.5	20.9	23	43,3,158	43,4,053	9,43,4,222	93	96	9,96	
Oceania											
Australia	45,14.6	45,16.9	45,17.6	2	1,718	1,583	1,634	112	108	108	

¹ Selection based on total population for midyear 1993.² First level enrollment generally consists of elementary school, grades 1–6.³ Second level enrollment includes general education, teacher training (at the second level), and technical and vocational education. This level generally corresponds to secondary education in the United States, grades 7–12.⁴ Third level enrollment includes college and university enrollment, and technical and vocational education beyond the high school level. There is considerable variation in reporting from country to country.⁵ In many countries, a child may be exempt from school attendance if there is no suitable school within a reasonable distance of his/her home.⁶ Data are the total enrollment of all ages in the school level divided by the population of the specific age groups which correspond to the school level. Adjustments have been made for the varying lengths of first and second level programs. Because some countries have many students from outside the normal age range, ratios may exceed 100.⁷ Enrollment totals and ratios exclude Democratic People's Republic of Korea. Data do not include adult education or special education provided outside regular schools.⁸ Classification of first and/or second levels have been revised. Data by level may not be comparable over time.⁹ Data for 1992.¹⁰ Data exclude Ecole Nationale d'Administration et de Magistrature (ENAM).¹¹ Eastern Cameroon.¹² Data for 1986.¹³ Data for 1989.¹⁴ Excludes all private institutions.¹⁵ Data for 1985.¹⁶ Data refer to public education only.¹⁷ Data for 1979.¹⁸ Data for 1984.¹⁹ Includes education preceding the first level.²⁰ Data for 1981.²¹ Data for 1987.²² Data do not include Transkei, Bophuthatswana, Venda, or Ciskei.²³ Data refer to government maintained and aided schools only.²⁴ Data refer to Tanzania mainland only.

Table 388.—Selected statistics for countries¹ with populations over 10 million, by continent: 1980, 1990, and 1993—Continued

Second level ³						Third level ⁴						Age for compulsory attendance ⁵	
Enrollment in thousands			Enrollment ratio ⁶			Enrollment in thousands			Enrollment ratio ⁶				
1980	1990	1993	1980	1990	1993	1980	1990	1993	1980	1990	1993		
12	13	14	15	16	17	18	19	20	21	22	23	24	
268,187	315,412	341,063	47	52	55	50,578	68,560	78,374	12.1	13.6	15.5	—	
1,028	2,176	9,2,305	33	61	9,61	—	286	9,303	5.9	11.4	9,11.4	6-15	
191	186	—	20	12	—	2	7	—	0.4	0.8	—	7-15	
234	500	648	18	28	32	10,12	33	—	1.6	3.2	—	11,6-12	
222	—	—	19	23	25	20	12,24	—	2.9	13,3.1	—	7-13	
2,929	5,507	6,133	50	76	76	716	14,708	—	16.1	17.5	9,17.1	6-14	
15,666	866	9,721	8	13	9,11	14	34	—	0.4	0.8	—	7-13	
693	13,830	—	41	37	—	8	10	—	1.6	1.4	—	6-14	
428	15,458	—	20	15,21	25	13	13,31	—	0.9	1.6	—	—	
17,234	—	—	18,30	17	14	23	36	9,43	2.6	3.1	9,3.5	6-13	
797	1,124	9,1,208	26	34	9,35	112	15,181	—	5.9	10.1	10.3	7-16	
20,108	160	164	5	8	7	1	21,2	5	0.1	15,0.1	0.4	7-14	
2,346	3,123	9,4,032	21	24	9,29	150	13,336	—	2.2	13,4.0	—	6-12	
—	2,743	—	12,55	68	77	—	22,439	9,24,490	—	12.8	9,13.4	—	
384	732	—	16	23	—	29	13,60	—	1.7	3.0	—	—	
23,87	23,268	23,261	23,5	23,12	23,11	6	18	24	0.5	23,1.1	23,1.3	—	
24,79	24,167	24,197	3	5	5	15,5	13,5	—	—	15,0.3	—	7-14	
862	9,1,097	1,341	24	15,23	24	28	25,61	—	1.2	1.9	—	6-12	
75	661	640	8	49	45	8	49	9,62	1.3	5.2	9,6.1	7-15	
137	—	—	10	13,8	15	12,22	24	—	—	13,1.7	—	7-15	
2,659	3,593	—	18	19	—	240	434	—	2.8	3.8	—	6-10	
56,778	51,054	53,837	46	48	55	26,1,161	26,2,147	4,505	1.2	1.7	3.8	7-16	
32,748	15,44,485	64,116	30	44	49	3,545	4,951	—	5.2	7.8	—	27,6-14	
5,722	10,965	9,10,969	29	44	9,43	18,980	9,1,885	9,1,973	—	9,10.0	9,10.2	7-13	
2,718	5,085	7,059	42	54	66	15,18,184	16,312	16,437	—	9.1	15.1	6-10	
1,033	25,1,167	9,1,145	57	47	9,44	107	25,210	—	8.7	25,12.6	—	6-12	
9,558	11,026	—	93	97	—	2,412	13,2,683	—	30.5	15,27.8	—	6-15	
—	—	—	—	90	260	290	272	34.1	40.1	41.6	—	—	
—	21,31,2,468	—	—	—	—	21,390	—	—	—	—	—	5-15	
4,286	4,560	29,4,569	78	90	29,96	30,648	1,691	2,099	14.7	38.6	29,50.8	6-12	
1,084	1,420	1,573	48	56	59	58	124	—	4.1	7.2	—	6-14	
1,066	21,1,359	—	22	23	—	21,202	9,195	9,244	—	21,4.8	—	5-10	
512	709	9,855	21	31	9,35	16,34	94	—	2.7	4.9	—	6-11	
2,166	3,983	—	14	21	—	15,268	13,305	—	15,2.5	2.6	—	—	
2,929	4,034	29,4,804	64	73	79	1,276	1,709	—	24.4	27.4	26.2	7-13	
349	893	9,1,073	29	44	9,49	62	154	9,193	7.1	11.6	9,13.7	—	
1,267	2,082	2,247	55	74	74	26,43	12,62	—	2.7	5.2	29,6.1	5-15	
604	914	923	46	52	47	140	222	—	16.9	17.8	9,17.6	6-11	
1,920	2,230	9,2,718	29	30	9,37	15,1,027	13,952	9,1,156	12.7	13,15.7	9,18.7	7-15	
2,218	3,808	9,4,300	35	54	9,61	246	750	1,143	5.4	12.9	9,15.7	6-14	
—	—	3,136	—	—	94	278	344	—	29.6	31.6	—	—	
—	13,3,652	—	42	33	35	31,115	13,186	—	2.1	1.5	1.5	6-11	
73	33,421	—	33,4	33,31	—	8	25,38,23	—	33,1.0	25,38,2.9	—	—	
760	968	994	98	93	92	177	192	178	39.0	47.4	44.1	34,6-17	
781	864	—	89	83	—	197	190	—	17.4	17.0	—	6-16	
—	—	1,120	—	—	86	120	118	129	17.5	16.0	15.5	—	
5,014	5,522	5,737	85	99	106	1,077	1,699	2,075	25.3	39.6	49.5	6-16	
37,845	7,398	7,796	—	98	101	1,624	2,049	1,875	27.2	33.9	35.6	6-18	
740	851	—	81	99	—	121	195	—	17.1	25.9	—	6-15	
357	514	529	70	79	81	101	102	134	14.1	14.0	16.9	6-16	
5,308	5,118	4,716	72	79	81	1,118	1,452	1,682	27.0	30.8	37.3	6-13	
38,1391	1,402	9,1,370	93	120	9,123	360	479	9,507	29.3	39.8	9,44.8	5-16	
1,674	1,888	2,109	77	81	84	589	545	694	18.1	21.7	25.5	7-14	
871	2,838	9,2,452	71	92	9,82	193	13,165	9,236	12.1	15,8.5	9,11.8	6-14	
12,991	13,956	13,732	96	94	88	5,700	5,100	4,587	46.1	52.2	45.3	—	
3,977	4,755	4,734	87	105	113	698	1,222	9,1,371	23.2	36.7	9,41.1	34,6-15	
3,406	3,408	4,125	94	93	80	880	895	—	41.6	46.5	—	34,6-17	
5,342	4,336	9,4,537	83	86	9,92	827	1,258	9,1,528	19.1	29.1	9,37.4	5-16	
—	788	9,832	—	63	9,65	—	9,133	9,143	—	9,18.0	9,18.9	7-15	
2,323	2,292	9,2,392	88	101	9,104	40,1,173	1,917	2,011	51.6	94.7	9,102.9	6-16	
1,146	1,002	726	81	89	77	152	242	—	17.3	20.9	9,18.1	6-11	
4,742	6,704	6,977	48	55	58	930	1,311	1,358	14.2	14.1	13.8	6-14	
21,945	19,313	21,055	94	96	97	12,097	13,820	14,305	58.0	77.7	76.2	7-16	
20,1,366	25,1,974	—	56	25,69	—	491	21,959	—	21.8	9,40.7	40.5	6-14	
2,819	3,499	9,4,086	34	39	9,43	1,409	42,1,540	42,1,595	11.1	11.3	11.5	7-14	
538	720	653	52	73	67	145	255	327	12.3	20.5	26.7	6-13	
1,733	9,2,378	2,796	41	955	62	272	13,475	—	9.1	15,11.3	—	6-14	
592	15,730	9,814	53	55	9,55	270	207	—	34.9	20.0	—	6-14	
1,203	1,698	29,1,776	59	67	65	306	682	9,778	17.3	33.1	9,40.1	6-12	
44,222	44,281	9,44,299	21	35	9,35	307	550	—	20.6	29.0	—	5-15	
1,100	1,278	1,282	71	82	84	324	485	964	25.4	35.5	41.9	6-16	

²⁵ Data for 1988.²⁶ Includes full-time students only.²⁷ Data pertain to the majority of states.²⁸ General education only.²⁹ Data for 1994.³⁰ Data do not include Air & Correspondence courses.³¹ Includes correspondence courses.³² Data for Former Democratic Yemen do not include schools for nomads.³³ Former Yemen Arab Republic only.³⁴ Grade levels changed for compatibility with ISCED.³⁵ Data are a combination of data for the Czech Republic and Slovakia.³⁶ Data include both former East and West Germany.³⁷ Excludes technical education, consisting of both on the job training and school education.³⁸ Data do not include apprenticeships and health care training.³⁹ Includes infant classes in primary schools, previously considered as preprimary education.⁴⁰ Excludes trade and vocational programs.⁴¹ Population data are from the U.S. Bureau of the Census, *Current Population Reports*, Population Estimates. Enrollment totals and ratios are based on data compiled by the National Center for Education Statistics and the U.S. Bureau of the Census. First level includes grades 1 through 6 (ages 5-10), second level includes grades 7 through 12 (ages 11-16), and third level includes ages 20-24.⁴² Excludes post-graduate level.⁴³ Data refer to grades 1 to 9 (basic education).⁴⁴ Data refers to grades 10 and 11.⁴⁵ Includes Norfolk Island.[—] Data not available.

NOTE.—Some data have been revised from previously published figures.

SOURCE: United Nations Educational, Scientific, and Cultural Organization (UNESCO), Paris, *Statistical Yearbook*, various years; U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20; and U.S. Department of Education, National Center for Education Statistics, Common Core of Data and "Fall Enrollment in Institutions of Higher Education" surveys, and Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment" survey. (This table was prepared May 1996.)

Table 389.—Estimated population, school enrollment, teachers, and public expenditures for education in major areas of the world: 1980, 1990, 1992, and 1993

Item	World total ¹	Major areas of the world					
		Africa ²	Asia ³	Europe ⁴	Central and South America ⁵	Northern America ⁶	Oceania ⁶
1	2	3	4	5	6	7	8
1980							
Population, all ages, ⁷ in thousands	4,444,361	475,666	2,642,110	692,997	358,440	252,461	22,687
Enrollment, all levels, ⁸ in thousands	858,235	80,146	494,052	132,101	87,216	59,904	4,815
First (primary) level	539,471	64,249	335,871	48,669	65,319	22,611	2,752
Second level ⁹	268,187	14,355	144,495	66,810	16,967	23,914	1,647
Third level ¹⁰	50,578	1,543	13,687	16,623	4,930	13,379	416
Teachers, all levels, ⁸ in thousands	38,124	2,406	19,466	8,233	3,732	4,015	272
First (primary) level	18,854	1,712	10,830	2,343	2,261	1,579	129
Second level ⁹	15,525	600	7,477	4,573	1,083	1,679	112
Third level ¹⁰	3,745	94	1,159	1,317	388	757	31
Public expenditures on education, in millions of U.S. dollars	\$526,700	\$22,900	\$103,500	\$200,600	\$34,200	\$155,100	\$10,400
As a percent of gross national product	4.9	5.3	4.4	¹¹ 5.1	3.9	5.2	5.6
1990							
Population, all ages, ⁷ in thousands	5,284,843	632,672	3,186,447	721,739	439,719	277,838	26,428
Enrollment, all levels, ⁸ in thousands	977,149	108,274	564,914	131,805	104,974	61,971	5,211
First (primary) level	593,177	80,815	361,881	47,504	75,479	24,774	2,724
Second level ⁹	315,412	24,509	179,989	65,408	22,079	21,569	1,859
Third level ¹⁰	68,560	2,950	23,045	18,893	7,416	15,627	628
Teachers, all levels, ⁸ in thousands	46,793	3,809	24,069	9,399	5,154	4,031	331
First (primary) level	22,614	2,411	12,670	2,697	3,006	1,686	144
Second level ⁹	19,216	1,241	9,680	5,180	1,520	1,450	146
Third level ¹⁰	4,964	157	1,719	1,522	628	896	42
Public expenditures on education, in millions of U.S. dollars	\$1,017,000	\$26,000	\$227,100	\$368,000	\$47,100	\$330,200	\$18,600
As a percent of gross national product	4.9	5.7	4.2	¹¹ 5.0	4.1	5.4	5.6
1992							
Population, all ages, ⁷ in thousands	5,457,896	669,631	3,295,787	724,826	456,588	283,803	27,261
Enrollment, all levels, ⁸ in thousands	1,018,220	116,438	590,319	132,033	109,242	64,730	5,458
First (primary) level	610,842	86,149	370,556	47,606	77,980	25,744	2,806
Second level ⁹	333,651	27,000	193,743	65,076	23,383	22,541	1,908
Third level ¹⁰	73,728	3,289	26,020	19,351	7,879	16,445	744
Teachers, all levels, ⁸ in thousands	48,448	4,121	24,748	9,654	5,421	4,162	342
First (primary) level	23,395	2,628	12,881	2,786	3,190	1,763	148
Second level ⁹	19,868	1,322	10,016	5,322	1,559	1,498	152
Third level ¹⁰	5,185	170	1,852	1,547	672	902	42
Public expenditures on education, in millions of U.S. dollars	\$1,231,900	\$24,700	\$300,600	\$469,900	\$56,700	\$360,500	\$19,500
As a percent of gross national product	5.1	5.9	4.3	5.4	4.4	5.6	5.8
1993							
Population, all ages, ⁷ in thousands	5,543,607	688,786	3,349,520	725,679	465,065	286,867	27,690
Enrollment, all levels, ⁸ in thousands	1,041,496	120,412	605,844	131,696	112,368	65,609	5,568
First (primary) level	622,059	88,615	377,148	47,296	80,008	26,140	2,852
Second level ⁹	341,063	28,340	198,919	64,697	24,187	22,984	1,936
Third level ¹⁰	78,374	3,456	29,777	19,703	8,173	16,485	780
Teachers, all levels, ⁸ in thousands	49,501	4,229	25,355	9,756	5,606	4,204	350
First (primary) level	23,778	2,661	13,046	2,833	3,279	1,806	153
Second level ⁹	20,291	1,389	10,256	5,377	1,626	1,489	155
Third level ¹⁰	5,431	179	2,053	1,546	700	910	43
Public expenditures on education, in millions of U.S. dollars	\$1,176,000	\$26,200	\$289,800	\$391,100	\$66,600	\$382,100	\$20,200
As a percent of gross national product	5.1	6.2	4.3	5.2	4.6	5.6	6.0

¹ Enrollment and teacher data exclude the Democratic People's Republic of Korea. Expenditure data exclude Albania, Cambodia, Democratic People's Republic of Korea, Lao People's Democratic Republic, Lebanon, Mongolia, Mozambique, South Africa, and Viet Nam.² Excludes Rodrigues and other small islands.³ Excludes the former U.S.S.R., the Democratic People's Republic of Korea, and Arab states, but includes both the Asian and the European portions of Turkey.⁴ Includes the former U.S.S.R.⁵ Northern America includes Bermuda, Canada, Greenland, St. Pierre, Miquelon and the United States of America. Hawaii is included in Northern America rather than Oceania. Central and South America includes the rest of America.⁶ Includes American Samoa, Australia, Guam and New Zealand.⁷ Estimate of midyear population.⁸ Excludes special and adult education provided outside regular schools. Data prior to 1992 exclude primary.⁹ Includes general, teacher training and vocational education.¹⁰ Includes universities and other institutions of higher education.¹¹ This figure is for Europe, not including the former U.S.S.R.SOURCE: United Nations Educational, Scientific, and Cultural Organization, Paris, *Statistical Yearbook*, various years. (This table was prepared May 1996.)

**Table 390.—Pupils per teacher in public and private elementary and secondary schools, by level of education:
Selected countries, 1985 to 1992**

Country	Elementary					Junior high schools					Senior high schools				
	1985	1989	1990	1991	1992	1985	1989	1990	1991	1992	1985	1989	1990	1991	1992
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Australia ¹	113.8	—	—	18.0	218.4	—	—	—	—	—	3.2	—	—	—	—
Austria	11.3	11.5	11.6	11.6	12.2	9.2	7.9	7.7	7.6	7.7	15.2	12.6	12.4	11.9	11.6
Belgium	—	—	—	9.3	13.7	—	—	—	—	—	—	—	—	4.6	—
Canada	18.1	16.9	17.1	—	—	16.0	15.5	15.5	—	—	16.0	15.5	15.3	—	—
Denmark	12.7	12.2	11.2	11.1	310.9	10.2	8.4	9.3	9.2	39.1	14.8	13.6	13.3	12.6	310.4
France	—	—	—	22.7	420.4	—	—	—	—	—	—	—	—	5.6	—
Germany (former West)	20.7	20.3	20.3	21.4	519.6	16.9	14.7	14.6	14.8	514.6	23.7	21.9	21.0	20.4	519.0
Ireland	—	—	—	—	25.6	—	—	—	—	—	7.2	8.0	8.3	8.6	—
Italy	12.8	10.8	10.7	10.9	10.9	9.6	8.7	8.5	8.3	9.0	10.8	10.7	10.7	10.5	8.8
Japan	—	21.5	120.8	120.3	619.8	—	19.4	18.6	17.7	616.8	—	146.4	16.2	16.2	616.4
Luxembourg	—	13.7	—	—	—	—	86.6	—	—	—	—	5.2	—	—	—
Netherlands	20.2	19.2	19.2	19.0	723.6	12.7	12.6	12.4	10.2	—	—	—	—	—	—
New Zealand	20.1	19.7	19.1	18.4	18.5	—	—	—	—	—	—	—	—	—	—
Norway	—	—	—	10.7	—	—	—	—	8.7	—	—	—	—	8.1	—
Portugal	—	—	—	13.3	—	—	—	—	0.1	—	—	—	—	5.2	—
Spain	26.8	22.9	21.2	19.7	21.2	21.4	19.5	18.8	17.8	17.6	15.3	15.1	14.8	14.7	15.9
Sweden	11.6	10.7	10.6	10.4	11.9	10.8	10.6	10.2	9.7	10.6	13.1	12.2	11.9	11.9	16.0
Turkey	31.1	30.7	30.6	30.5	29.3	41.3	50.0	48.4	49.7	47.5	11.0	12.2	12.1	13.1	13.2
United Kingdom	19.7	22.0	22.0	22.2	20.8	—	18.5	18.5	18.6	15.9	11.1	17.2	13.9	13.7	14.8
United States	17.0	15.6	15.6	15.5	—	16.5	16.0	15.9	16.1	16.8	16.2	16.0	15.8	15.6	15.0

¹ Public schools only.² Teachers include principals, deputy principals and senior teachers mainly involved in administrative tasks.³ Full-time and part-time teachers are estimates. Distribution by school level (primary and lower secondary levels) is also an estimate. Kindergartens are classified as public institutions.⁴ The number of full-time equivalent teachers does not take into account the additional hours given by teachers. In public secondary education institutions, an increase of 6.6 per cent of total full-time equivalents would be observed if the additional hours were taken into account. The number of teachers in independent private secondary education institutions are entirely estimates. About 18 per cent of all the pedagogical and support staff, and about 7 per cent of all the staff employed in education have been estimated.⁵ Most components are estimates.⁶ Principals and vice-principals are included in "Teachers" while other staff is included in "Support staff." Full-time equivalents of part-time teachers are not calculated, since there are no valid and reliable data available on the basis of which such calculations can be made.⁷ Teaching staff do not include direction staff.⁸ Figures on teachers at lower secondary education are included in upper secondary education.

—Data not available.

SOURCE: Organization for Economic Cooperation and Development, "Education at a Glance," various years; and unpublished data. (This table was prepared April 1996.)

Table 391.—Geography proficiency of 13-year-olds in educational systems participating in the International Assessment of Educational Progress: 1991

Country	Average percent correct				
	All geography items ¹ (s.e.)	Geographic skills and tools ² (s.e.)	Physical geography items ³ (s.e.)	Cultural geography items ⁴ (s.e.)	
1	2	3	4	5	
Hungary	69.8 (0.6)	76.3 (0.5)	67.8 (0.7)	65.0 (0.7)	
Slovenia	65.3 (0.6)	67.9 (0.5)	63.6 (0.7)	64.3 (0.9)	
Canada ⁵	63.0 (0.5)	69.5 (0.4)	61.0 (0.6)	58.2 (0.6)	
Soviet Union (former) ⁶	62.6 (1.1)	72.2 (0.9)	61.2 (1.0)	53.4 (1.8)	
United States	61.9 (0.8)	69.4 (0.6)	58.3 (1.0)	58.1 (1.0)	
Spain ⁷	60.1 (0.7)	62.4 (0.9)	58.9 (0.7)	58.9 (1.1)	
Korea	59.7 (0.5)	67.8 (0.5)	52.1 (0.7)	60.3 (0.6)	
Ireland	58.5 (0.6)	62.7 (0.6)	59.5 (0.8)	52.3 (0.8)	
Scotland	58.3 (0.6)	66.2 (0.5)	57.1 (0.8)	50.6 (0.8)	

¹ All 24 geographic items.² Eight items testing ability to use maps, charts, and globes.³ Nine items testing knowledge of location of physical features and concepts of climate.⁴ Seven items testing knowledge of cultural entities and interactions between people and their environment.⁵ Eight provinces.⁶ Schools in 14 republics where instruction is in Russian.⁷ Schools where instruction is in Spanish, in all regions except Cataluna.

NOTE.—s.e.=standard error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, International Assessment of Educational Progress, *Learning About The World*, 1992. (This table was prepared May 1993.)

Table 392.—Characteristics of educational systems participating in the International Assessment of Educational Progress: 1991

Country	Ethnic homogeneity ¹	Age for starting school	Average days in school year ²	Average minutes of instruction in school day ²	National curriculum	Percent of schools with one or more problems ^{2,3}
1	2	3	4	5	6	7
Populations (comprehensive)						
Canada ⁴	No	6	188 (0.2)	304 (0.8)	No	13 (1.3)
France	Yes	6	174 (1.7)	370 (3.4)	Yes	29 (4.9)
Hungary	Yes	6	177 (1.5)	223 (1.3)	Yes	32 (4.2)
Ireland	Yes	6	173 (0.9)	323 (4.4)	Yes	39 (5.8)
Israel ⁵	No	6	215 (2.2)	278 (6.5)	Yes	46 (6.7)
Jordan	Yes	6	191 (0.9)	260 (2.9)	Yes	63 (5.3)
Korea	Yes	6	222 (2.5)	264 (2.4)	Yes	24 (4.9)
Scotland	Yes	5	191 (0.9)	324 (2.3)	Yes	23 (4.0)
Slovenia	Yes	7	190 (1.5)	248 (2.5)	Yes	50 (5.3)
Spain ⁶	No	6	188 (2.3)	285 (3.2)	Yes	33 (5.0)
(Former) Soviet Union ⁷	No	6 or 7	198 (2.1)	243 (2.6)	Yes	72 (5.1)
Switzerland ⁸	No	6 or 7	207 (3.2)	305 (7.4)	No	11 (3.5)
Taiwan	No	6	222 (2.5)	318 (6.9)	Yes	10 (2.8)
United States	No	6	178 (0.4)	338 (5.0)	No	5 (2.2)
Populations (with exclusions or low participation)						
Brazil, Fortaleza	No	7	183 (1.1)	223 (9.8)	No	62 (5.3)
Brazil, Sao Paulo	No	7	181 (0.2)	271 (9.3)	No	60 (4.6)
China	Yes	6.5 or 7	251 (2.1)	305 (7.1)	Yes	43 (6.3)
England	Yes	5	192 (1.8)	300 (4.4)	Yes	24 (8.3)
Italy ⁹	Yes	6	204 (0.5)	289 (5.0)	Yes	18 (5.1)
Mozambique, Maputo, and Beira	No	7	193 (0.0)	272 (0.0)	Yes	92 (0.0)
Portugal	Yes	6	172 (1.1)	334 (6.5)	Yes	56 (7.9)

¹90 percent of entire population from one ethnic group.²For 13-year-olds.³Problems included: overcrowded classrooms, inadequate facilities and maintenance, shortages of textbooks and other educational materials, student absenteeism, lack of discipline, and vandalism of school property.⁴Four provinces assessed 9-year-olds. Nine provinces assessed 13-year-olds.⁵Schools where instruction is in Hebrew.⁶Schools where instruction is in Spanish, in all regions except Catalonia.⁷Schools in 14 republics, where instruction is in Russian.⁸Fifteen Cantons.⁹Emilia-Romagna province only.

NOTE.—Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, International Assessment of Educational Progress, *Learning Science and Learning Mathematics*, by Educational Testing Service. (This table was prepared February 1992.)**Table 393.—Classroom, home, and mathematics activities of 9-year-olds in educational systems participating in the International Assessment of Educational Progress: 1991**

Country	Average percent correct on mathematics test	Percent of students who read for fun every day	Percent of students with 2 hours or more homework daily	Percent of students who do math exercises by themselves often	Percent of students who work with math tools often ¹	Percent of students who watch TV 5 hours or more daily
1	2	3	4	5	6	7
Populations (comprehensive)						
Korea	75 (0.6)	25 (1.2)	22 (1.1)	23 (1.0)	11 (1.0)	9 (0.7)
Hungary	68 (0.6)	50 (1.6)	25 (1.4)	69 (1.0)	20 (1.0)	16 (1.2)
Taiwan	68 (0.8)	29 (1.3)	31 (1.2)	47 (1.3)	30 (1.1)	8 (0.8)
(Former) Soviet Union ²	66 (1.3)	63 (1.3)	31 (1.3)	62 (1.2)	21 (1.0)	18 (0.7)
Israel ³	64 (0.7)	57 (1.4)	35 (1.5)	42 (1.5)	21 (1.2)	24 (1.1)
Spain ⁴	62 (1.0)	55 (1.4)	29 (1.8)	60 (1.7)	23 (1.7)	17 (1.4)
Ireland	60 (0.8)	45 (1.4)	18 (1.5)	51 (1.6)	14 (1.1)	23 (1.5)
Canada ⁵	60 (0.5)	48 (0.8)	13 (0.6)	48 (1.0)	13 (0.6)	22 (0.8)
United States	58 (1.0)	45 (1.5)	20 (1.2)	44 (1.5)	19 (1.3)	26 (1.6)
Slovenia	56 (0.6)	63 (1.5)	15 (1.1)	61 (1.4)	20 (1.3)	8 (0.6)
Populations (with exclusions or low participation)						
Italy ⁶	68 (0.9)	51 (1.9)	17 (1.5)	42 (2.1)	18 (1.3)	9 (0.8)
Scotland	66 (0.9)	43 (1.6)	4 (0.6)	48 (1.5)	13 (1.5)	23 (1.5)
England	59 (1.9)	51 (2.6)	9 (1.2)	47 (2.8)	18 (1.5)	23 (2.0)
Portugal	55 (0.9)	60 (2.2)	20 (1.7)	32 (2.1)	17 (1.7)	20 (1.5)

¹Tools are counting blocks, geometric shapes, and geometric solids.²Schools in 14 republics, where instruction is in Russian.³Schools where instruction is in Hebrew.⁴Schools where instruction is in Spanish, in all regions except Catalonia.⁵Four provinces.⁶Emilia-Romagna province only.

NOTE.—Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, International Assessment of Educational Progress, *Learning Mathematics*, by Educational Testing Service. (This table was prepared February 1992.)

Table 394.—Mathematics test scores of 9-year-olds in educational systems participating in the International Assessment of Educational Progress: 1991

Country		Average percent correct										Percentile scores										Topic averages					
		Total	Male	Female	1	5	10	90	95	99	Numbers and operations	Measurement	Geometry	Data analysis, statistics, and probability	Algebraic functions	Conceptual understanding	Procedural knowledge ²	Problem solving ³									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18										
IAEP average	63.3	—	—	—	—	—	—	—	—	—	61.2	67.2	63.9	67.6	61.8	63.2	66.7	58.5									
Populations (comprehensive)																											
Korea	74.8 (0.6)	77.2 (0.7)	72.4 (0.8)	26.2 (0.9)	41.0 (3.7)	50.8 (4.7)	93.4 (0.0)	95.1 (0.0)	98.4 (0.0)	74.6 (0.6)	73.0 (0.6)	75.4 (0.7)	79.3 (0.6)	72.1 (0.7)	75.0 (0.6)	78.7 (0.6)	68.8 (0.6)										
Hungary	68.2 (0.6)	68.2 (0.8)	68.2 (0.8)	20.4 (2.3)	33.3 (1.5)	40.7 (1.2)	90.2 (2.5)	93.4 (0.0)	98.4 (0.0)	67.5 (0.7)	71.6 (0.7)	68.6 (0.7)	63.4 (0.8)	72.4 (0.8)	68.2 (0.6)	70.8 (0.7)	64.4 (0.7)										
Taiwan	68.1 (0.8)	68.4 (0.8)	67.8 (0.9)	19.2 (1.6)	32.1 (4.6)	41.0 (1.8)	91.8 (1.7)	95.1 (0.0)	98.4 (0.0)	67.1 (0.8)	69.3 (0.8)	69.2 (0.8)	72.8 (0.8)	64.2 (0.8)	68.5 (0.8)	76.1 (0.8)	55.7 (0.8)										
(Former) Soviet Union ⁴	65.9 (1.3)	66.4 (1.2)	65.4 (1.4)	20.0 (0.6)	30.8 (1.0)	37.7 (0.7)	90.2 (0.7)	93.4 (2.3)	98.4 (0.0)	65.7 (1.3)	71.3 (1.0)	64.4 (1.3)	60.1 (1.5)	67.8 (1.3)	63.0 (1.3)	72.0 (1.2)	61.7 (1.4)										
Israel ⁵	64.4 (0.7)	66.0 (0.8)	62.7 (0.9)	21.3 (0.4)	30.4 (2.8)	38.6 (3.1)	86.9 (2.1)	91.8 (0.0)	96.7 (0.0)	63.6 (0.8)	69.9 (0.7)	58.8 (0.9)	63.9 (1.0)	62.6 (0.8)	68.3 (0.8)	61.6 (0.8)	61.6 (0.8)										
Spain ⁶	61.9 (1.0)	61.9 (1.3)	61.8 (1.1)	18.8 (0.6)	26.8 (1.8)	32.8 (2.0)	86.9 (0.0)	90.2 (2.4)	96.7 (0.0)	61.3 (1.1)	60.8 (0.8)	60.1 (1.1)	69.3 (1.1)	60.8 (1.0)	60.8 (1.0)	66.1 (1.0)	57.3 (1.1)										
Ireland	60.0 (0.8)	59.9 (0.9)	60.1 (1.1)	16.0 (3.3)	24.6 (0.4)	31.2 (1.5)	85.0 (3.9)	90.2 (0.0)	95.1 (0.0)	58.0 (0.9)	64.2 (0.8)	57.9 (0.9)	65.2 (0.8)	59.4 (1.0)	59.3 (0.8)	63.9 (0.8)	55.5 (0.9)										
Canada ⁷	59.9 (0.5)	59.9 (0.7)	60.0 (0.6)	19.6 (1.6)	28.3 (2.5)	35.7 (1.5)	83.6 (0.0)	88.5 (0.0)	93.4 (2.8)	55.0 (0.6)	65.4 (0.5)	64.7 (0.6)	72.3 (0.5)	56.4 (0.6)	60.4 (0.5)	61.1 (0.6)	57.4 (0.5)										
United States	58.4 (1.0)	58.7 (1.1)	58.0 (1.2)	18.0 (1.1)	24.6 (0.0)	29.5 (2.1)	83.6 (0.0)	90.2 (2.3)	96.7 (1.6)	54.3 (1.1)	63.2 (1.0)	56.9 (1.0)	72.8 (1.1)	55.3 (1.0)	59.7 (1.0)	54.5 (1.0)	54.5 (1.0)										
Slovenia	55.8 (0.6)	55.8 (0.7)	55.9 (0.7)	18.9 (0.8)	27.7 (1.8)	34.0 (0.8)	79.3 (0.3)	84.5 (0.0)	93.1 (0.0)	52.7 (0.6)	62.4 (0.6)	63.1 (0.8)	54.2 (0.8)	57.8 (0.6)	56.3 (0.6)	57.6 (0.6)	52.3 (0.7)										
Populations (with exclusions or low participation)																											
Italy ⁸	67.8 (0.9)	69.5 (1.0)	65.9 (1.1)	23.0 (2.0)	34.4 (1.6)	42.6 (0.3)	90.2 (1.7)	93.4 (4.9)	98.4 (0.0)	67.3 (0.9)	73.3 (0.9)	64.6 (1.1)	71.1 (0.9)	60.8 (1.3)	67.8 (0.9)	72.5 (0.9)	60.6 (1.1)										
Scotland	65.7 (0.9)	65.8 (1.1)	65.6 (1.1)	23.0 (0.1)	32.8 (0.0)	39.3 (2.8)	89.8 (4.6)	93.3 (2.7)	96.7 (4.6)	62.1 (1.0)	71.3 (0.9)	68.5 (0.8)	73.9 (0.8)	63.1 (1.2)	66.3 (0.8)	67.9 (1.0)	61.8 (0.8)										
England	59.5 (1.9)	58.5 (1.5)	60.3 (2.9)	17.2 (2.1)	26.7 (1.6)	32.8 (0.5)	86.9 (2.5)	91.8 (3.3)	96.7 (0.0)	53.6 (2.1)	67.2 (1.6)	67.0 (1.5)	70.4 (1.7)	56.9 (2.1)	60.7 (1.7)	59.2 (2.0)	57.9 (1.9)										
Portugal	55.5 (0.9)	56.8 (1.1)	54.2 (1.1)	16.7 (1.9)	26.2 (0.5)	31.6 (0.8)	81.7 (2.6)	86.9 (0.0)	93.4 (1.6)	54.4 (1.1)	58.3 (0.7)	55.6 (1.2)	57.1 (1.0)	55.7 (1.0)	55.7 (0.9)	59.5 (1.1)	49.2 (1.0)										
Populations (Canadian)																											
Quebec-French	64.5 (0.7)	65.1 (0.8)	64.0 (0.8)	23.0 (0.0)	32.8 (0.6)	40.7 (4.5)	85.3 (0.0)	88.5 (1.3)	95.1 (0.0)	59.1 (0.8)	68.1 (0.7)	72.8 (0.7)	76.8 (0.7)	63.6 (0.8)	64.6 (0.6)	66.2 (0.9)	62.0 (0.8)										
Quebec-English	62.5 (0.8)	62.9 (0.9)	62.0 (1.0)	18.0 (0.0)	29.5 (0.4)	36.1 (1.7)	86.9 (0.9)	90.2 (0.0)	96.7 (0.0)	58.5 (0.9)	69.1 (0.7)	67.2 (0.7)	73.2 (0.7)	57.5 (0.8)	63.5 (0.8)	68.7 (0.8)	58.7 (0.8)										
British Columbia	61.9 (0.5)	61.8 (0.7)	62.0 (0.6)	18.2 (1.3)	29.5 (2.3)	36.1 (3.1)	85.3 (0.0)	90.2 (0.2)	96.7 (0.0)	58.7 (0.6)	67.4 (0.5)	62.4 (0.4)	72.3 (0.6)	56.5 (0.5)	62.1 (0.4)	63.7 (0.6)	59.1 (0.6)										
New Brunswick-English	59.8 (0.7)	60.3 (0.9)	59.3 (0.9)	17.5 (3.5)	26.7 (0.0)	33.9 (3.6)	83.6 (0.0)	88.5 (5.5)	95.1 (0.0)	56.1 (0.8)	66.0 (0.7)	63.1 (1.0)	69.3 (0.8)	54.6 (0.7)	61.2 (0.7)	61.1 (0.8)	55.7 (0.7)										
Ontario-English	56.8 (0.7)	56.3 (0.9)	57.2 (0.9)	18.0 (0.0)	24.6 (2.4)	31.2 (1.5)	81.1 (4.6)	85.7 (3.1)	93.4 (0.0)	52.0 (0.8)	63.3 (0.7)	60.0 (0.9)	69.5 (0.7)	52.2 (0.7)	57.6 (0.8)	54.3 (0.7)	54.3 (0.7)										
Ontario-French	54.5 (0.6)	54.7 (0.7)	54.3 (0.6)	18.0 (2.7)	26.3 (0.4)	31.2 (0.0)	77.1 (1.0)	82.0 (0.0)	90.2 (5.3)	48.2 (0.6)	60.0 (0.7)	61.7 (0.7)	67.6 (0.7)	55.1 (0.6)	54.4 (0.6)	52.4 (0.7)	52.4 (0.7)										

¹Conceptual understanding questions analyzed students' abilities in understanding of mathematical facts and concepts.²Procedural knowledge tasks required students to apply knowledge and concepts in solving routine problems using procedures taught in the classroom.³Problem solving questions required the student to apply several skills to a unique situation. These tasks usually involved multiple steps.⁴Schools in 14 republics, where instruction is in Hebrew.⁵Schools where instruction is in Russian.⁶Schools where instruction is in Spanish, in all regions except Catalonia.⁷Four provinces.⁸Emilia-Romagna province only.⁹Data not available.

NOTE.—Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, Learning Mathematics, by Educational Testing Service. (This table was prepared February 1992.)

Table 395.—Classroom, home, and mathematics activities of 13-year-olds in educational systems participating in the International Assessment of Educational Progress: 1991

Country	Average percent correct on mathematics test	Percent of students who read for fun every day	Percent of students with 2 hours or more homework daily	Percent of students who watch TV 5 hours or more daily	Percent of students who do math exercises by themselves every day	Percent of students who take a math quiz at least once a week	Percent of students with positive attitudes towards mathematics
1	2	3	4	5	6	7	8
Populations (comprehensive)							
Korea	73 (0.6)	11 (0.8)	41 (1.7)	11 (0.9)	17 (1.0)	28 (1.9)	71 (1.3)
Taiwan	73 (0.7)	19 (1.2)	41 (1.3)	10 (0.7)	32 (1.1)	87 (1.1)	79 (0.9)
Switzerland ¹	71 (1.3)	51 (1.1)	20 (1.3)	7 (0.8)	47 (1.9)	40 (2.5)	85 (1.1)
(Former) Soviet Union ²	70 (1.0)	47 (1.3)	52 (1.6)	17 (1.0)	40 (1.7)	52 (1.5)	76 (1.8)
Hungary	68 (0.8)	44 (1.2)	58 (1.3)	13 (1.0)	37 (1.6)	17 (1.3)	85 (0.8)
France	64 (0.8)	40 (1.2)	55 (1.6)	5 (0.7)	—	64 (1.3)	81 (1.0)
Israel ³	63 (0.8)	40 (1.7)	50 (1.9)	20 (1.2)	12 (1.1)	36 (2.2)	90 (0.8)
Canada ⁴	62 (0.6)	38 (0.9)	27 (1.0)	14 (0.7)	50 (1.1)	53 (0.9)	94 (0.4)
Scotland	61 (0.9)	38 (1.5)	14 (1.1)	24 (1.3)	48 (2.1)	17 (1.3)	91 (0.7)
Ireland	61 (0.9)	41 (1.3)	63 (1.9)	9 (0.9)	54 (1.5)	19 (1.5)	88 (1.0)
Slovenia	57 (0.8)	42 (1.2)	28 (1.7)	4 (0.5)	41 (1.4)	28 (1.5)	83 (1.0)
Spain ⁵	55 (0.8)	36 (1.3)	64 (1.5)	10 (0.8)	39 (1.6)	31 (1.7)	89 (1.0)
United States	55 (1.0)	28 (1.3)	29 (1.8)	20 (1.7)	50 (2.7)	68 (2.1)	90 (1.1)
Jordan	40 (1.0)	24 (1.3)	56 (2.0)	7 (0.8)	34 (1.4)	68 (1.5)	77 (1.5)
Populations (with exclusions or low participation)							
China ⁶	80 (1.0)	28 (1.5)	44 (1.8)	7 (0.5)	78 (1.6)	63 (2.2)	79 (2.1)
Italy ⁷	64 (0.9)	47 (1.3)	79 (1.3)	5 (0.7)	10 (0.7)	19 (1.6)	86 (0.9)
England	61 (2.2)	41 (3.2)	33 (2.8)	14 (2.2)	21 (2.5)	28 (5.8)	91 (1.2)
Portugal	48 (0.8)	44 (1.8)	30 (1.6)	11 (1.0)	30 (1.6)	21 (1.8)	84 (1.1)
Brazil, Sao Paulo	37 (0.8)	33 (1.5)	45 (1.9)	19 (1.2)	35 (1.4)	44 (1.5)	83 (1.0)
Brazil, Fortaleza	32 (0.6)	41 (1.3)	48 (1.8)	21 (1.5)	31 (1.6)	56 (1.9)	86 (1.1)
Mozambique, Maputo and Beira	28 (0.3)	41 (1.6)	42 (1.8)	20 (1.2)	62 (1.6)	94 (1.0)	88 (1.0)

¹Fifteen cantons.²Schools in 14 republics, where instruction is in Russian.³Schools where instruction is in Hebrew.⁴Nine provinces.⁵Schools where instruction is in Spanish, in all regions except Catalonia.⁶Twenty provinces and independent cities.⁷Emilia-Romagna province only.

—Data not available.

NOTE.—Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, International Assessment of Educational Progress, *Learning Mathematics*, by Educational Testing Service. (This table was prepared February 1992.)

Table 396.—Mathematics test scores of 13-year-olds in educational systems participating in the International Assessment of Educational Progress: 1991

Country		Average percent correct					Percentile scores					Topic averages					Process averages	
		Total	Male	Female	1	5	10	90	95	99	Numbers and operations	Measurement	Geometry	Data analysis, statistics, and probability	Algebra and functions	Conceptual understanding	Procedural knowledge ²	Problem solving ³
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
IAEP average	58.3	—	—	—	—	—	—	—	—	—	61.0	46.9	62.2	69.1	54.2	60.6	58.4	55.9
Populations (comprehensive)																		
Korea	73.4 (0.6)	74.4 (0.9)	72.2 (1.0)	20.0 (0.0)	33.3 (1.5)	41.3 (1.5)	96.0 (0.0)	97.3 (1.9)	100.0 (0.0)	77.4 (0.6)	59.5 (0.9)	77.4 (0.6)	81.2 (0.7)	70.8 (0.8)	78.3 (0.5)	73.4 (0.7)	68.5 (0.7)	
Taiwan	72.7 (0.7)	73.1 (0.9)	72.4 (0.9)	18.7 (1.4)	26.7 (0.0)	35.0 (3.0)	97.3 (1.3)	98.7 (0.0)	100.0 (0.0)	74.7 (0.6)	63.7 (0.9)	76.6 (0.8)	81.2 (0.6)	69.2 (0.9)	74.7 (0.7)	68.6 (0.8)		
Switzerland ⁴	70.8 (1.3)	72.8 (1.5)	68.7 (1.1)	30.7 (1.2)	42.7 (0.8)	50.7 (1.9)	93.3 (1.3)	94.7 (0.0)	98.7 (0.0)	73.6 (1.0)	62.0 (1.5)	76.6 (1.3)	81.8 (1.1)	62.7 (1.9)	71.7 (1.1)	69.0 (1.4)	71.9 (1.3)	
(Former) Soviet Union ⁵	70.2 (1.0)	70.0 (1.3)	70.3 (0.9)	20.9 (2.4)	35.2 (1.4)	42.7 (0.8)	92.0 (0.0)	94.7 (0.0)	98.7 (0.0)	73.6 (1.0)	69.2 (1.0)	59.7 (1.1)	77.6 (1.0)	76.1 (1.3)	71.9 (1.1)	70.3 (1.0)	66.7 (1.0)	
Hungary	68.4 (0.8)	68.3 (1.0)	68.3 (0.9)	21.3 (0.9)	32.4 (1.3)	38.7 (1.3)	93.3 (0.0)	96.0 (0.0)	98.7 (0.0)	69.4 (1.0)	55.1 (1.0)	69.4 (0.7)	75.9 (0.8)	69.8 (0.9)	69.8 (0.7)	70.8 (0.8)	64.2 (0.8)	
France	64.2 (0.8)	65.5 (0.9)	62.8 (0.9)	22.7 (3.0)	30.7 (1.8)	37.3 (1.0)	89.3 (0.0)	92.0 (0.3)	97.3 (1.3)	65.0 (0.7)	52.7 (1.0)	73.1 (0.8)	79.3 (0.7)	57.0 (1.0)	67.4 (0.7)	65.7 (0.7)	59.3 (0.8)	
Israel ⁶	63.1 (0.8)	64.4 (0.9)	61.8 (1.1)	21.3 (1.0)	30.7 (1.0)	37.3 (0.2)	87.8 (2.6)	90.7 (0.0)	96.0 (3.9)	64.8 (0.7)	47.2 (1.1)	65.8 (1.0)	74.8 (0.8)	64.7 (1.0)	63.8 (0.8)	65.3 (0.9)	59.8 (0.9)	
Canada ⁷	62.0 (0.6)	63.0 (0.7)	60.9 (0.6)	21.3 (0.6)	32.0 (0.0)	37.3 (0.0)	86.7 (0.0)	91.8 (4.3)	97.3 (1.3)	65.6 (0.6)	49.9 (0.6)	68.1 (0.7)	76.4 (0.6)	62.0 (0.7)	65.1 (0.6)	61.9 (0.7)	58.9 (0.5)	
Scotland	60.6 (0.9)	60.4 (1.0)	60.8 (1.1)	21.3 (0.8)	29.0 (0.2)	34.7 (0.1)	86.7 (0.0)	90.7 (0.0)	96.0 (0.0)	59.7 (0.8)	51.0 (1.2)	69.6 (0.9)	79.1 (0.8)	52.8 (1.2)	61.8 (0.9)	60.9 (1.0)	57.9 (0.9)	
Ireland	60.5 (0.9)	62.6 (1.2)	58.4 (1.1)	17.8 (1.3)	33.3 (2.0)	42.8 (1.7)	86.7 (0.0)	90.7 (0.0)	96.0 (4.2)	65.1 (0.8)	49.4 (1.0)	59.9 (1.1)	71.8 (1.0)	55.6 (1.1)	62.0 (1.2)	57.9 (0.8)	57.9 (0.8)	
Slovenia	57.1 (0.8)	58.1 (0.8)	56.1 (1.0)	21.3 (0.0)	27.1 (3.9)	32.0 (0.1)	82.7 (0.2)	88.0 (2.6)	94.7 (0.0)	62.2 (0.7)	43.1 (0.9)	63.1 (1.0)	63.6 (0.8)	51.8 (1.0)	58.5 (0.7)	59.0 (0.9)	53.7 (0.8)	
Spain ⁸	55.4 (0.8)	57.1 (1.1)	53.8 (0.8)	20.3 (1.6)	28.6 (0.5)	32.9 (2.0)	78.4 (0.8)	84.7 (1.3)	91.9 (2.0)	60.1 (0.6)	37.9 (0.8)	60.0 (1.2)	67.7 (0.8)	52.5 (1.2)	58.4 (0.7)	55.8 (0.9)	51.9 (0.8)	
United States	55.3 (1.0)	55.8 (1.1)	54.8 (1.3)	17.3 (3.8)	24.0 (0.6)	29.3 (0.0)	82.7 (1.3)	90.7 (0.1)	97.3 (0.0)	54.3 (1.0)	39.5 (1.0)	54.3 (1.0)	72.2 (1.0)	49.2 (1.6)	57.4 (0.9)	56.0 (1.3)	52.3 (1.0)	
Jordan	40.4 (1.0)	41.4 (1.2)	39.1 (1.9)	13.3 (0.0)	17.6 (1.2)	21.3 (1.5)	65.3 (3.1)	75.7 (3.3)	89.3 (5.2)	42.8 (1.0)	32.0 (1.0)	43.5 (1.1)	45.7 (1.0)	38.1 (1.3)	44.9 (0.9)	38.5 (1.2)	37.9 (1.0)	
Populations (with exclusions or low participation)																		
China ⁹	80.2 (1.0)	81.7 (1.0)	78.5 (1.1)	37.0 (2.2)	49.3 (2.7)	57.3 (3.3)	96.0 (1.3)	98.7 (1.3)	100.0 (0.0)	84.9 (0.9)	71.3 (1.5)	80.2 (1.1)	75.4 (1.2)	82.4 (0.9)	81.6 (1.0)	83.0 (0.9)	75.6 (1.2)	
England	60.6 (2.2)	60.8 (3.0)	60.4 (2.2)	18.7 (1.9)	27.4 (3.3)	34.5 (3.7)	89.3 (0.5)	93.3 (1.3)	97.3 (1.0)	58.5 (2.0)	51.2 (2.5)	70.3 (2.4)	79.5 (1.8)	54.0 (2.8)	62.0 (2.1)	59.0 (2.6)	60.8 (2.0)	
Italy ¹⁰	64.0 (0.9)	65.8 (1.1)	62.1 (0.9)	23.0 (1.3)	32.4 (1.5)	36.5 (1.5)	80.6 (0.9)	91.8 (0.5)	96.0 (0.0)	63.8 (0.5)	52.8 (1.1)	75.3 (1.0)	71.7 (0.8)	52.6 (1.1)	62.1 (1.1)	63.3 (0.9)	63.3 (0.9)	
Portugal	48.3 (0.8)	48.9 (1.3)	47.9 (0.9)	17.3 (0.9)	23.9 (1.3)	28.0 (0.5)	74.7 (0.9)	80.6 (1.7)	89.7 (2.6)	52.1 (0.8)	39.0 (1.2)	49.0 (1.3)	68.6 (1.0)	43.1 (1.1)	51.8 (0.9)	47.1 (1.0)	46.4 (0.7)	
Brazil, São Paulo	37.0 (0.8)	37.9 (0.9)	36.2 (0.9)	10.3 (2.1)	16.7 (1.0)	18.7 (0.9)	62.7 (0.7)	70.7 (1.5)	82.7 (0.7)	40.9 (0.8)	24.1 (0.5)	34.3 (1.5)	49.7 (1.0)	35.6 (1.1)	35.5 (0.9)	36.5 (1.1)	36.0 (0.6)	
Brazil, Fortaleza	32.4 (0.6)	35.2 (0.9)	30.5 (0.6)	10.9 (0.4)	14.7 (0.6)	17.3 (0.3)	56.8 (2.1)	65.3 (0.6)	80.8 (3.5)	35.8 (0.7)	20.5 (0.5)	28.6 (0.8)	43.8 (0.8)	32.3 (0.9)	35.3 (0.7)	30.8 (0.8)	31.0 (0.5)	
Mozambique, Maputo, and Beira	28.3 (0.3)	28.8 (0.5)	27.8 (0.3)	11.5 (1.1)	16.2 (0.6)	18.7 (0.1)	44.6 (1.4)	50.0 (3.2)	60.0 (2.2)	33.8 (0.4)	20.1 (0.3)	29.2 (0.5)	35.4 (0.6)	20.5 (0.5)	34.0 (0.4)	22.9 (0.4)	28.2 (0.4)	
Populations (Canadian)																		
Quebec-French	68.7 (0.7)	69.8 (1.0)	67.5 (0.8)	29.3 (1.4)	39.7 (1.8)	45.3 (2.8)	89.3 (0.0)	93.3 (0.0)	96.4 (2.7)	72.3 (0.6)	56.4 (1.0)	78.1 (0.8)	81.1 (1.0)	58.4 (1.0)	72.6 (0.7)	68.0 (0.8)	65.3 (0.8)	
Saskatchewan-French	67.5 (1.0)	68.8 (1.5)	66.3 (1.4)	32.0 (1.3)	36.0 (2.9)	46.5 (3.7)	87.8 (3.9)	90.7 (2.5)	96.0 (1.3)	73.9 (1.0)	53.8 (1.3)	69.2 (1.3)	76.0 (1.2)	61.6 (1.4)	70.1 (1.2)	69.3 (1.1)	62.9 (1.1)	
British Columbia	66.2 (0.7)	66.8 (0.8)	65.4 (1.0)	25.3 (0.7)	35.6 (2.1)	41.3 (0.0)	90.7 (4.0)	94.7 (3.6)	97.3 (1.3)	69.3 (0.7)	54.1 (0.9)	69.6 (0.9)	79.9 (0.7)	60.2 (0.8)	68.5 (0.7)	68.0 (0.8)	61.8 (0.7)	
Alberta	65.7 (0.9)	65.7 (1.6)	65.7 (0.8)	23.0 (2.5)	33.8 (3.9)	43.1 (1.3)	90.7 (0.0)	94.7 (2.4)	98.7 (0.0)	68.7 (0.9)	53.5 (1.1)	70.6 (1.0)	78.1 (1.0)	59.6 (1.1)	66.3 (0.9)	66.6 (1.0)	61.9 (1.0)	
Manitoba-French	63.1 (0.6)	64.5 (1.1)	63.4 (0.8)	23.5 (2.6)	33.3 (3.5)	38.7 (3.5)	92.0 (1.8)	96.0 (0.3)	97.3 (0.0)	68.6 (1.0)	54.3 (0.9)	67.2 (0.7)	76.1 (0.7)	52.1 (0.9)	68.3 (0.7)	62.6 (0.8)	61.0 (0.7)	
Saskatchewan-English	62.0 (0.7)	63.2 (0.9)	60.7 (1.0)	21.3 (1.3)	29.7 (4.5)	37.3 (5.8)	86.7 (3.8)	90.7 (0.0)	94.7 (0.0)	67.1 (0.7)	48.5 (0.7)	66.6 (0.8)	75.0 (0.8)	58.5 (0.7)	64.6 (0.7)	58.2 (0.6)	57.2 (0.7)	
New Brunswick-French	60.6 (0.4)	60.5 (0.6)	60.7 (0.6)	20.3 (1.3)	30.2 (3.1)	36.0 (0.5)	85.1 (1.3)	89.3 (0.0)	93.3 (0.0)	65.4 (0.5)	46.5 (0.5)	64.5 (0.5)	72.3 (0.5)	54.3 (0.4)	62.6 (0.4)	55.3 (0.4)	55.3 (0.4)	
Nova Scotia	59.7 (0.6)	60.7 (0.9)	58.8 (0.8)	20.0 (0.0)	29.3 (1.2)	35.1 (1.5)	85.3 (0.0)	90.7 (0.0)	97.3 (0.0)	64.7 (0.3)	47.3 (0.8)	73.9 (0.7)	73.9 (0.6)	61.8 (0.6)	60.2 (0.6)	57.1 (0.6)	57.1 (0.6)	
Newfoundland	58.9 (0.6)	57.8 (0.7)	59.9 (0.8)	18.7 (1.3)	29.3 (0.4)	34.7 (0.1)	84.0 (2.1)	88.0 (5.8)	96.0 (2.7)	61.9 (0.6)	45.1 (0.7)	65.1 (0.9)	72.4 (0.7)	61.8 (0.7)	60.3 (0.7)	54.3 (0.6)	54.3 (0.6)	
Ontario-English	58.3 (0.8)	59.3 (1.0)	57.4 (0.9)	20.0 (1.2)	29.3 (0.0)	34.7 (0.0)	84.0 (2.0)	89.3 (1.3)	96.0 (1.3)	61.8 (0.8)	46.2 (0.9)	63.4 (1.0)	73.6 (0.8)	49.5 (1.0)	60.8 (0.8)	58.5 (0.9)	55.5 (0.8)	
Manitoba-English	58.0 (0.8)	58.0 (0.9)	57.9 (1.0)	20.0 (1.7)	28.0 (2.7)	33.3 (4.2)	82.7 (0.0)	86.7 (0.0)	90.6 (0.3)	62.5 (0.7)	45.6 (0.9)	58.4 (0.9)	73.6 (0.9)	50.8 (1.0)	60.5 (0.8)	58.8 (0.9)	54.4 (0.7)	
New Brunswick-English	57.7 (0.5)	58.3 (0.7)	57.1 (0.7)	20.0 (0.0)	27.5 (1.6)	33.3 (0.0)	82.7 (0.0)	89.3 (2.0)	96.0 (0.0)	62.4 (0.5)	51.3 (0.6)	62.4 (0.6)	71.0 (0.6)	43.2 (0.6)	61.4 (0.5)	55.4 (0.6)	56.4 (0.5)	
Ontario-French	53.5 (0.6)	53.5 (0.8)	53.5 (0.8)	18.7 (0.2)	32.0 (1.1)	32.0 (0.0)	76.0 (3.0)	82.7 (0.0)	92.0 (2.3)	58.0 (0.6)	38.8 (0.7)	59.0 (1.0)	69.0 (0.7)	56.6 (0.7)	54.1 (0.8)	49.6 (0.6)	49.6 (0.6)	

¹ Conceptual understanding questions analyzed students' abilities in understanding of mathematical facts and concepts.² Procedural knowledge tasks required students to apply knowledge and concepts in solving routine problems using procedures taught in the classroom.³ Problem-solving questions required the student to apply several skills to a unique situation. These tasks usually involved multiple steps.⁴ Fifteen cantons.⁵ Schools in 14 republics, where instruction is in Hebrew.⁷ Nine provinces⁸ Schools where instruction is in Spanish, in all regions except Catalonia.⁹ Twenty provinces and independent cities.¹⁰ Emilia-Romagna province only.[—] Data not available.

NOTE.—Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, Learning Mathematics, by Educational Testing Service. (This table was prepared February 1992.)

Table 397.—Science test scores of 9-year-olds in educational systems participating in the International Assessment of Educational Progress: 1991

Country		Average percent correct										Percentile scores										Topic averages					
		Total		Male		Female		1		5		10		90		95		99		Life sciences		Physical sciences		Earth and space sciences		Nature of science	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	16	17	16	17	16	17	16	17	
IAEP average	62.1	—	—	—	—	—	—	—	—	—	—	—	—	—	63.3	58.6	64.1	63.9	63.9	62.7	56.9	62.7	62.7	62.7	62.7		
Populations (comprehensive)																											
Korea	67.9 (0.5)	70.4 (0.7)	65.1 (0.5)	32.8 (4.9)	44.8 (0.4)	50.0 (0.0)	84.5 (0.0)	87.9 (0.0)	93.1 (3.4)	69.1 (0.5)	68.2 (0.5)	62.4 (0.6)	70.7 (0.6)	67.3 (0.5)	70.1 (0.5)	64.5 (0.5)	64.5 (0.5)	64.5 (0.5)	64.5 (0.5)	64.5 (0.5)	64.5 (0.5)	64.5 (0.5)	64.5 (0.5)	64.5 (0.5)	64.5 (0.5)		
Taiwan	66.7 (0.5)	68.5 (0.6)	64.6 (0.7)	27.6 (1.3)	39.7 (0.0)	44.8 (7.2)	86.2 (0.2)	89.7 (0.0)	94.8 (0.0)	65.3 (0.6)	68.1 (0.5)	66.6 (0.7)	67.4 (0.6)	65.3 (0.6)	69.5 (0.6)	63.6 (0.6)	63.6 (0.6)	63.6 (0.6)	63.6 (0.6)	63.6 (0.6)	63.6 (0.6)	63.6 (0.6)	63.6 (0.6)	63.6 (0.6)	63.6 (0.6)		
United States	64.7 (0.9)	65.5 (1.1)	63.8 (0.8)	25.9 (0.3)	36.2 (1.7)	43.1 (5.1)	84.5 (0.0)	87.9 (0.0)	93.1 (0.0)	65.2 (0.9)	65.2 (0.9)	57.5 (0.8)	70.6 (1.1)	70.7 (1.0)	67.0 (1.0)	65.5 (0.9)	65.5 (0.9)	57.9 (0.8)	57.9 (0.8)	57.9 (0.8)	57.9 (0.8)	57.9 (0.8)	57.9 (0.8)	57.9 (0.8)	57.9 (0.8)	57.9 (0.8)	
Canada ¹	62.8 (0.4)	63.6 (0.4)	62.0 (0.5)	27.6 (0.5)	37.9 (1.1)	43.1 (0.0)	81.0 (0.0)	84.5 (0.0)	91.4 (0.0)	63.3 (0.4)	57.7 (0.4)	66.8 (0.4)	67.3 (0.5)	63.4 (0.4)	65.3 (0.4)	56.4 (0.4)	56.4 (0.4)	56.4 (0.4)	56.4 (0.4)	56.4 (0.4)	56.4 (0.4)	56.4 (0.4)	56.4 (0.4)	56.4 (0.4)	56.4 (0.4)		
Hungary	62.5 (0.5)	63.4 (0.6)	61.6 (0.6)	26.9 (1.7)	38.5 (0.7)	44.8 (0.0)	79.3 (0.0)	84.2 (2.9)	89.7 (0.0)	64.7 (0.6)	56.3 (0.6)	68.2 (0.5)	62.0 (0.6)	66.1 (0.5)	61.1 (0.5)	57.4 (0.7)	57.4 (0.7)	57.4 (0.7)	57.4 (0.7)	57.4 (0.7)	57.4 (0.7)	57.4 (0.7)	57.4 (0.7)	57.4 (0.7)	57.4 (0.7)		
Spain ²	61.7 (0.7)	63.4 (0.9)	59.7 (0.7)	27.6 (3.1)	36.2 (0.0)	41.8 (1.6)	81.0 (0.0)	84.5 (0.0)	89.7 (0.0)	65.7 (0.7)	54.1 (0.7)	62.7 (0.7)	65.1 (1.0)	66.7 (0.7)	60.3 (0.7)	53.8 (0.8)	53.8 (0.8)	53.8 (0.8)	53.8 (0.8)	53.8 (0.8)	53.8 (0.8)	53.8 (0.8)	53.8 (0.8)	53.8 (0.8)	53.8 (0.8)		
(Former) Soviet Union ³	61.5 (1.2)	62.7 (1.4)	60.4 (1.2)	29.3 (4.2)	39.7 (1.5)	43.1 (1.4)	79.3 (4.8)	86.2 (2.4)	93.1 (2.4)	63.8 (1.4)	58.1 (0.9)	63.1 (1.4)	60.2 (1.4)	63.9 (1.4)	62.3 (1.1)	54.7 (1.4)	54.7 (1.4)	54.7 (1.4)	54.7 (1.4)	54.7 (1.4)	54.7 (1.4)	54.7 (1.4)	54.7 (1.4)	54.7 (1.4)	54.7 (1.4)		
Israel ⁴	61.2 (0.7)	63.0 (0.9)	59.4 (0.7)	27.6 (0.3)	36.2 (1.4)	41.4 (0.0)	81.0 (0.0)	86.2 (0.0)	93.1 (0.0)	61.4 (0.8)	59.8 (0.6)	60.6 (0.7)	64.1 (0.9)	61.0 (0.8)	63.0 (0.6)	57.7 (0.8)	57.7 (0.8)	57.7 (0.8)	57.7 (0.8)	57.7 (0.8)	57.7 (0.8)	57.7 (0.8)	57.7 (0.8)	57.7 (0.8)	57.7 (0.8)		
Slovenia	57.7 (0.5)	58.3 (0.6)	57.0 (0.6)	27.8 (0.8)	35.1 (0.2)	40.4 (0.4)	75.4 (0.0)	79.0 (0.0)	86.0 (1.5)	59.4 (0.5)	56.6 (0.5)	58.3 (0.7)	54.1 (0.6)	56.0 (0.5)	57.0 (0.5)	52.9 (0.7)	52.9 (0.7)	52.9 (0.7)	52.9 (0.7)	52.9 (0.7)	52.9 (0.7)	52.9 (0.7)	52.9 (0.7)	52.9 (0.7)	52.9 (0.7)		
Ireland	56.5 (0.7)	58.2 (1.0)	54.8 (0.9)	22.9 (1.4)	29.3 (1.6)	36.2 (1.3)	75.9 (0.0)	81.0 (1.8)	89.7 (5.2)	54.7 (0.8)	53.8 (0.7)	62.9 (0.8)	59.5 (0.8)	57.2 (0.8)	57.4 (0.7)	53.0 (0.8)	53.0 (0.8)	53.0 (0.8)	53.0 (0.8)	53.0 (0.8)	53.0 (0.8)	53.0 (0.8)	53.0 (0.8)	53.0 (0.8)	53.0 (0.8)		
Populations (with exclusions or low participation)																											
Italy ⁵	66.9 (0.9)	67.9 (1.0)	65.8 (1.0)	31.0 (1.7)	41.4 (3.3)	48.3 (0.3)	86.2 (1.7)	89.7 (1.7)	94.8 (0.0)	71.3 (0.9)	61.0 (0.9)	66.8 (0.9)	66.8 (1.1)	71.6 (0.9)	66.1 (0.9)	58.2 (1.1)	58.2 (1.1)	58.2 (1.1)	58.2 (1.1)	58.2 (1.1)	58.2 (1.1)	58.2 (1.1)	58.2 (1.1)	58.2 (1.1)	58.2 (1.1)		
England	62.9 (0.9)	63.8 (1.3)	62.0 (1.2)	24.1 (4.1)	36.2 (0.9)	41.4 (0.0)	82.8 (0.0)	86.2 (2.8)	93.1 (0.0)	62.4 (0.9)	60.1 (0.9)	66.3 (1.1)	66.3 (1.1)	64.5 (1.0)	63.6 (0.9)	58.2 (1.0)	58.2 (1.0)	58.2 (1.0)	58.2 (1.0)	58.2 (1.0)	58.2 (1.0)	58.2 (1.0)	58.2 (1.0)	58.2 (1.0)	58.2 (1.0)		
Scotland	62.2 (0.7)	61.9 (0.7)	62.5 (1.0)	27.6 (0.0)	36.8 (3.0)	43.1 (0.0)	81.0 (3.5)	84.5 (0.0)	89.7 (0.0)	64.3 (0.7)	59.1 (0.7)	67.7 (1.0)	62.5 (0.6)	62.7 (0.7)	60.4 (0.7)	54.1 (0.7)	54.1 (0.7)	54.1 (0.7)	54.1 (0.7)	54.1 (0.7)	54.1 (0.7)	54.1 (0.7)	54.1 (0.7)	54.1 (0.7)	54.1 (0.7)		
Portugal	54.8 (0.7)	56.3 (0.9)	53.3 (0.9)	26.3 (3.8)	33.3 (3.2)	37.9 (0.0)	72.4 (0.0)	79.0 (5.6)	86.2 (3.9)	58.1 (0.8)	50.0 (0.6)	57.3 (0.9)	52.4 (1.1)	58.4 (0.9)	54.1 (0.7)	48.5 (0.8)	48.5 (0.8)	48.5 (0.8)	48.5 (0.8)	48.5 (0.8)	48.5 (0.8)	48.5 (0.8)	48.5 (0.8)	48.5 (0.8)	48.5 (0.8)		
Populations (Canadian)																											
British Columbia	65.9 (0.6)	66.1 (0.8)	65.6 (0.6)	29.3 (4.6)	41.4 (0.0)	46.6 (3.6)	82.8 (0.0)	86.2 (0.0)	91.4 (0.0)	66.4 (0.7)	59.6 (0.7)	72.1 (0.6)	69.9 (0.8)	68.2 (0.6)	66.9 (0.6)	58.6 (0.8)	58.6 (0.8)	58.6 (0.8)	58.6 (0.8)	58.6 (0.8)	58.6 (0.8)	58.6 (0.8)	58.6 (0.8)	58.6 (0.8)	58.6 (0.8)		
Quebec-English	63.0 (0.7)	64.3 (0.9)	61.7 (0.8)	29.3 (2.0)	37.9 (0.0)	43.1 (2.0)	82.8 (0.0)	86.2 (0.0)	91.4 (0.0)	63.9 (0.8)	57.3 (0.6)	66.8 (0.8)	67.9 (0.8)	65.1 (0.8)	64.4 (0.6)	55.7 (0.8)	55.7 (0.8)	55.7 (0.8)	55.7 (0.8)	55.7 (0.8)	55.7 (0.8)	55.7 (0.8)	55.7 (0.8)	55.7 (0.8)	55.7 (0.8)		
Quebec-French	62.8 (0.5)	63.2 (0.7)	62.4 (0.5)	32.8 (5.2)	40.7 (3.6)	44.8 (0.6)	79.3 (0.0)	84.5 (0.0)	89.7 (4.9)	63.3 (0.6)	59.1 (0.6)	63.0 (0.6)	68.9 (0.6)	68.9 (0.6)	61.1 (0.5)	57.9 (0.6)	57.9 (0.6)	57.9 (0.6)	57.9 (0.6)	57.9 (0.6)	57.9 (0.6)	57.9 (0.6)	57.9 (0.6)	57.9 (0.6)	57.9 (0.6)		
Ontario-English	62.5 (0.5)	63.6 (0.6)	61.4 (0.7)	27.6 (0.0)	36.2 (2.6)	43.1 (3.1)	81.0 (0.0)	86.2 (3.4)	91.4 (0.0)	63.0 (0.6)	56.6 (0.5)	68.4 (0.6)	66.2 (0.7)	64.3 (0.6)	64.1 (0.5)	55.1 (0.5)	55.1 (0.5)	55.1 (0.5)	55.1 (0.5)	55.1 (0.5)	55.1 (0.5)	55.1 (0.5)	55.1 (0.5)	55.1 (0.5)	55.1 (0.5)		
New Brunswick-English	61.6 (0.4)	61.9 (0.5)	61.3 (0.6)	24.1 (0.0)	34.5 (3.2)	41.4 (0.0)	81.0 (0.0)	84.5 (0.0)	91.4 (0.0)	61.3 (0.4)	56.9 (0.4)	67.2 (0.5)	65.4 (0.5)	63.1 (0.4)	63.4 (0.4)	54.5 (0.5)	54.5 (0.5)	54.5 (0.5)	54.5 (0.5)	54.5 (0.5)	54.5 (0.5)	54.5 (0.5)	54.5 (0.5)	54.5 (0.5)	54.5 (0.5)		
Ontario-French	56.3 (0.5)	56.5 (0.7)	56.1 (0.5)	28.9 (3.5)	34.5 (0.0)	39.7 (0.0)	74.1 (0.0)	79.3 (1.8)	86.2 (0.0)	54.9 (0.5)	53.7 (0.5)	60.5 (0.5)	56.0 (0.5)	55.1 (0.5)	59.7 (0.5)	51.7 (0.6)	51.7 (0.6)	51.7 (0.6)	51.7 (0.6)	51.7 (0.6)	51.7 (0.6)	51.7 (0.6)	51.7 (0.6)	51.7 (0.6)	51.7 (0.6)		

¹Four provinces.²Schools where instruction is in Spanish, in all regions except Catalonia.³Schools in 14 republics, where instruction is in Russian.⁴Schools where instruction is in Hebrew.⁵Emilia-Romagna province only.

—Data not available.

NOTE.—Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, International Assessment of Educational Progress, Learning Science, by Educational Testing Service. (This table was prepared February 1992.)

Table 398.—Classroom, home, and science activities of 9-year-olds in educational systems participating in the International Assessment of Educational Progress: 1991

Country	Average percent correct on science test	Percent of students who read for fun every day	Percent of students who read about science often	Percent of students who never conduct experiments	Percent of students with 2 hours or more homework daily	Percent of students who watch TV 5 hours or more daily
1	2	3	4	5	6	7
Populations (comprehensive)						
Korea	68 (0.5)	25 (1.4)	21 (1.1)	19 (1.1)	20 (1.2)	10 (0.8)
Taiwan	67 (0.5)	32 (1.3)	17 (1.0)	10 (0.8)	29 (1.4)	12 (0.8)
United States	65 (0.9)	47 (1.8)	32 (1.5)	22 (1.3)	19 (1.4)	25 (1.6)
Canada ¹	63 (0.4)	48 (0.9)	20 (0.7)	27 (1.0)	12 (0.6)	22 (0.7)
Hungary	63 (0.5)	52 (1.5)	36 (1.3)	40 (1.3)	29 (1.5)	15 (1.2)
Spain ²	62 (0.7)	54 (1.9)	39 (1.7)	40 (2.2)	28 (1.6)	20 (1.8)
(Former) Soviet Union ³	62 (1.2)	65 (1.8)	33 (2.2)	44 (1.2)	27 (1.8)	17 (1.1)
Israel ⁴	61 (0.7)	55 (1.3)	27 (1.3)	14 (1.1)	36 (1.7)	24 (1.2)
Slovenia	58 (0.5)	61 (1.2)	40 (1.5)	21 (1.1)	15 (1.2)	10 (0.8)
Ireland	57 (0.7)	50 (1.5)	24 (1.3)	50 (2.0)	16 (1.3)	22 (1.6)
Populations (with exclusions or low participation)						
Italy ⁵	67 (0.9)	50 (1.6)	22 (1.6)	50 (1.8)	27 (1.2)	9 (1.1)
England	63 (0.9)	49 (1.8)	21 (2.0)	11 (1.3)	10 (1.1)	22 (1.9)
Scotland	62 (0.7)	46 (2.1)	22 (1.5)	28 (2.6)	5 (0.8)	24 (1.4)
Portugal	55 (0.7)	62 (1.6)	18 (1.9)	22 (1.6)	22 (1.6)	18 (1.6)

¹Four provinces.²Schools where instruction is in Spanish, in all regions except Catalonia.³Schools in 14 republics, where instruction is in Russian.⁴Schools where instruction is in Hebrew.⁵Emilia-Romagna province only.

NOTE.—Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, International Assessment of Educational Progress, *Learning Science*, by Educational Testing Service. (This table was prepared February 1992.)**Table 399.—Classroom, home, and science activities of 13-year-olds in educational systems participating in the International Assessment of Educational Progress: 1991**

Country	Average percent correct on science test	Percent of students who read for fun every day	Percent of students with 2 hours or more homework daily	Percent of students who watch TV 5 hours or more daily	Percent of students who never conduct experiments	Percent of students who take a science quiz at least once a week	Percent of students with positive attitudes towards science
1	2	3	4	5	6	7	8
Populations (comprehensive)							
Korea	78 (0.5)	11 (0.8)	38 (1.5)	10 (0.8)	35 (1.7)	21 (1.6)	27 (1.3)
Taiwan	76 (0.4)	17 (1.1)	44 (1.3)	7 (0.7)	25 (1.3)	67 (1.2)	51 (1.2)
Switzerland ¹	74 (0.9)	49 (1.2)	21 (1.3)	7 (0.6)	36 (1.7)	18 (1.2)	59 (1.5)
Hungary	73 (0.5)	44 (1.3)	61 (1.5)	16 (1.1)	31 (1.7)	27 (1.6)	69 (1.2)
(Former) Soviet Union ²	71 (1.0)	48 (1.1)	52 (1.6)	19 (1.3)	13 (0.8)	88 (1.2)	66 (1.4)
Slovenia	70 (0.5)	43 (1.5)	27 (1.4)	5 (0.6)	22 (1.5)	18 (1.0)	78 (1.2)
Israel ³	70 (0.7)	40 (1.4)	49 (1.4)	20 (1.2)	35 (1.4)	28 (1.9)	62 (1.6)
Canada ⁴	69 (0.4)	36 (0.9)	26 (0.9)	15 (0.7)	13 (0.7)	26 (1.1)	62 (1.0)
France	69 (0.6)	39 (1.5)	55 (1.6)	4 (0.5)	20 (1.7)	47 (1.4)	55 (1.3)
Scotland	68 (0.6)	37 (1.4)	15 (1.5)	23 (1.3)	3 (0.3)	11 (1.0)	66 (1.2)
Spain ⁵	68 (0.6)	34 (1.5)	62 (1.9)	11 (0.9)	51 (2.3)	42 (2.6)	78 (1.4)
United States	67 (1.0)	29 (1.4)	31 (1.6)	22 (1.7)	25 (1.9)	69 (2.0)	57 (2.1)
Ireland	63 (0.6)	40 (1.3)	66 (1.6)	9 (0.9)	27 (2.1)	18 (1.1)	57 (1.4)
Jordan	57 (0.7)	22 (1.0)	54 (2.0)	10 (0.9)	26 (1.4)	73 (1.8)	82 (1.0)
Populations (with exclusions or low participation)							
Italy ⁶	70 (0.7)	45 (1.4)	78 (1.2)	7 (0.8)	59 (1.9)	9 (1.0)	73 (1.4)
England	69 (1.2)	36 (1.8)	26 (2.8)	23 (1.7)	2 (0.6)	8 (0.9)	66 (2.9)
China ⁷	67 (1.1)	28 (1.4)	35 (2.1)	2 (0.4)	29 (2.4)	42 (2.2)	74 (1.7)
Portugal	63 (0.8)	47 (1.2)	30 (1.7)	11 (0.9)	48 (1.7)	34 (2.0)	71 (1.4)
Brazil, Sao Paulo	53 (0.6)	31 (1.1)	48 (1.9)	18 (1.1)	35 (1.6)	45 (1.2)	69 (1.3)
Brazil, Fortaleza	46 (0.6)	41 (1.2)	50 (2.0)	20 (1.5)	44 (1.9)	55 (1.9)	74 (1.3)

¹Fifteen cantons.²Schools in 14 republics, where instruction is in Russian.³Schools where instruction is in Hebrew.⁴Nine provinces.⁵Schools where instruction is in Spanish, in all regions except Catalonia.⁶Emilia-Romagna province only.⁷Twenty provinces and independent cities.

NOTE.—Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, International Assessment of Educational Progress, *Learning Science*, by Educational Testing Service. (This table was prepared February 1992.)

Table 400.—Science test scores of 13-year-olds in educational systems participating in the International Assessment of Educational Progress: 1991

Country	Total	Average percent correct				Percentile scores						Topic averages				Process averages
		Male	Female	1	5	10	90	95	99	Life sciences	Physical sciences	Earth and space sciences	Nature of science	Exhibit basic knowledge of science facts and concepts (Knows)	Combine factual knowledge with rules and formulas (Loses)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
IAEP average	66.9	—	—	—	—	—	—	—	—	68.0	64.4	66.9	70.9	72.6	65.4	64.9
Populations (comprehensive)																
Korea	77.5 (0.5)	79.6 (0.6)	75.0 (0.7)	35.9 (0.6)	50.0 (0.0)	57.8 (3.8)	93.8 (0.0)	95.3 (0.0)	98.4 (0.0)	80.3 (0.5)	75.8 (0.5)	74.8 (0.6)	78.8 (0.6)	83.9 (0.5)	77.2 (0.4)	72.7 (0.6)
Taiwan	75.6 (0.4)	76.3 (0.6)	74.9 (0.6)	28.6 (3.6)	42.2 (0.0)	51.6 (0.0)	93.8 (0.0)	95.3 (0.0)	98.4 (0.0)	77.9 (0.5)	74.8 (0.4)	72.2 (0.5)	76.4 (0.6)	81.4 (0.5)	74.7 (0.4)	72.3 (0.5)
Switzerland 1	73.7 (0.9)	76.4 (1.1)	70.9 (0.8)	35.9 (2.9)	50.0 (5.7)	57.8 (0.6)	92.2 (0.0)	95.3 (0.0)	98.4 (0.0)	74.3 (0.9)	70.3 (0.9)	74.5 (0.8)	79.8 (1.0)	77.1 (0.9)	71.6 (0.8)	74.6 (1.1)
Hungary	73.4 (0.5)	75.6 (0.6)	71.4 (0.7)	33.3 (1.9)	45.3 (1.0)	51.6 (0.0)	92.2 (0.0)	95.3 (0.0)	98.4 (0.0)	77.3 (0.5)	70.1 (0.6)	72.2 (0.6)	75.3 (0.7)	82.5 (0.5)	71.1 (0.5)	69.9 (0.7)
(Former) Soviet Union 2	73.1 (1.0)	69.6 (1.0)	72.5 (1.1)	31.3 (0.6)	50.8 (1.9)	89.1 (2.3)	92.2 (2.7)	92.2 (2.7)	96.9 (0.0)	73.0 (1.0)	73.0 (0.9)	78.8 (1.1)	83.0 (0.8)	69.8 (0.8)	67.6 (1.3)	
Slovenia	70.3 (0.5)	72.5 (0.7)	68.2 (0.6)	34.4 (2.2)	43.8 (0.0)	50.0 (0.0)	89.1 (0.0)	92.2 (0.0)	96.9 (0.0)	73.1 (0.6)	67.3 (0.5)	70.1 (0.6)	72.5 (0.6)	80.2 (0.5)	68.0 (0.5)	66.0 (0.6)
Israel 3	69.7 (0.7)	71.6 (0.8)	68.0 (0.8)	34.4 (2.1)	42.2 (0.0)	47.6 (3.9)	89.1 (0.0)	92.2 (0.0)	96.9 (0.0)	65.4 (0.7)	69.8 (0.7)	67.5 (0.8)	78.5 (0.7)	70.5 (0.7)	68.4 (0.6)	71.1 (0.8)
Canada 4	68.8 (0.4)	70.5 (0.5)	67.1 (0.4)	32.8 (0.0)	43.8 (0.0)	48.4 (1.7)	87.5 (0.0)	90.6 (0.0)	95.3 (0.0)	68.5 (0.4)	64.9 (0.4)	67.9 (0.4)	79.0 (0.5)	71.7 (0.4)	66.1 (0.4)	71.0 (0.5)
France	68.6 (0.6)	70.7 (0.7)	66.5 (0.7)	31.3 (1.8)	40.6 (2.1)	45.3 (1.7)	89.1 (0.0)	92.2 (0.0)	96.9 (0.0)	67.5 (0.6)	66.8 (0.6)	75.7 (0.6)	71.4 (0.6)	70.1 (0.8)	67.0 (0.7)	
Scotland	67.9 (0.6)	69.6 (0.7)	66.3 (0.9)	28.6 (2.5)	39.1 (0.6)	45.3 (0.0)	87.5 (2.6)	90.6 (5.4)	96.9 (0.0)	67.3 (0.7)	65.7 (0.7)	64.1 (0.8)	76.8 (0.7)	72.3 (0.7)	65.8 (0.6)	67.7 (0.8)
Spain 5	67.5 (0.6)	69.2 (0.8)	66.0 (0.7)	35.1 (0.5)	42.6 (1.3)	48.4 (0.2)	87.5 (2.6)	89.1 (0.0)	95.3 (0.0)	70.3 (0.6)	64.1 (0.7)	68.5 (0.7)	70.0 (0.7)	76.3 (0.7)	65.2 (0.6)	64.3 (0.8)
United States	67.0 (1.0)	69.4 (1.2)	64.5 (0.9)	28.1 (2.0)	39.3 (2.9)	43.8 (5.1)	85.9 (0.0)	90.6 (0.0)	95.3 (0.0)	69.1 (1.0)	61.6 (1.1)	67.0 (0.9)	75.6 (1.3)	72.8 (1.0)	65.1 (0.9)	65.4 (0.3)
Ireland	63.3 (0.6)	66.1 (0.9)	60.8 (0.8)	27.4 (2.3)	35.9 (0.0)	40.6 (2.3)	84.4 (3.2)	89.1 (0.0)	95.3 (0.0)	61.0 (0.6)	60.7 (0.7)	65.5 (0.8)	71.4 (0.7)	66.0 (0.7)	62.0 (0.6)	63.4 (0.7)
Jordan	56.6 (0.7)	57.1 (0.8)	55.9 (1.3)	23.4 (0.0)	30.2 (2.9)	35.9 (0.0)	78.1 (1.6)	84.4 (2.1)	92.2 (3.5)	58.6 (0.7)	53.8 (0.8)	60.7 (0.9)	56.1 (0.9)	56.5 (0.7)	49.2 (0.8)	
Populations (with exclusions or low participation)																
England	68.7 (1.2)	70.3 (1.6)	67.1 (1.8)	31.3 (0.0)	44.3 (3.3)	89.1 (0.0)	92.2 (0.0)	98.4 (3.5)	68.2 (1.2)	66.6 (1.2)	65.9 (1.5)	76.5 (1.4)	72.1 (1.2)	66.8 (1.2)	69.0 (1.5)	
China 6	67.2 (1.1)	69.4 (1.2)	64.8 (1.1)	28.1 (3.5)	40.6 (0.6)	45.3 (1.6)	87.5 (1.6)	92.2 (2.2)	96.9 (0.0)	63.8 (1.1)	67.6 (1.1)	70.2 (1.4)	68.2 (1.1)	67.1 (1.1)	66.6 (1.1)	
Italy 7	69.9 (0.7)	72.0 (0.8)	67.6 (0.8)	31.3 (2.7)	43.8 (4.4)	48.4 (0.0)	89.1 (0.8)	92.2 (0.0)	95.3 (0.0)	71.8 (0.7)	67.0 (0.7)	70.8 (0.7)	72.7 (0.7)	76.7 (0.7)	69.6 (0.8)	
Portugal	62.6 (0.8)	65.0 (1.0)	60.3 (0.8)	28.1 (2.7)	37.3 (1.6)	42.3 (3.1)	84.4 (0.0)	89.1 (0.0)	93.8 (1.6)	65.9 (0.8)	58.4 (0.7)	61.1 (0.9)	67.7 (1.2)	60.9 (0.7)	59.5 (1.1)	
Brazil, Sao Paulo	52.7 (0.6)	56.3 (0.8)	49.6 (0.7)	23.4 (1.1)	33.2 (0.7)	33.3 (0.8)	74.5 (3.9)	81.3 (1.7)	92.2 (2.7)	56.3 (0.8)	48.8 (0.5)	55.8 (0.8)	52.5 (0.8)	60.4 (0.9)	51.9 (0.5)	47.5 (0.7)
Brazil, Fortaleza	46.4 (0.6)	49.1 (0.7)	44.3 (0.8)	21.8 (2.1)	27.3 (1.1)	31.3 (0.0)	67.2 (0.6)	73.4 (0.1)	85.9 (2.5)	51.3 (0.7)	42.6 (0.6)	48.6 (0.7)	44.8 (0.9)	55.5 (0.8)	45.4 (0.5)	40.5 (0.8)
Populations (Canadian)																
Alberta	74.1 (0.4)	76.4 (0.6)	71.8 (0.5)	35.9 (0.5)	48.4 (0.0)	54.7 (0.0)	90.6 (0.0)	93.8 (0.0)	96.9 (0.0)	72.3 (0.5)	71.3 (0.5)	73.7 (0.5)	75.7 (0.5)	72.0 (0.4)	76.4 (0.6)	
British Columbia	72.4 (0.5)	73.5 (0.6)	71.4 (0.6)	35.9 (1.6)	46.9 (0.0)	53.1 (0.0)	89.1 (0.0)	92.2 (0.0)	95.3 (0.0)	70.2 (0.5)	70.7 (0.5)	72.1 (0.6)	80.7 (0.6)	76.4 (0.5)	69.6 (0.5)	
Quebec-French	71.4 (0.5)	73.1 (0.6)	69.5 (0.6)	34.4 (3.1)	46.9 (1.6)	53.1 (1.3)	89.1 (0.0)	92.2 (0.0)	96.9 (0.0)	72.5 (0.5)	67.1 (0.6)	70.4 (0.6)	80.2 (0.6)	74.3 (0.6)	73.5 (0.7)	
Saskatchewan-English	70.1 (0.6)	72.0 (0.7)	68.2 (0.6)	32.8 (1.6)	43.8 (0.0)	50.0 (0.0)	89.1 (0.0)	92.2 (0.0)	96.9 (0.0)	70.5 (0.6)	65.1 (0.7)	71.5 (0.7)	79.8 (0.6)	68.2 (0.5)	70.2 (0.8)	
Quebec-English	69.2 (0.5)	71.2 (0.7)	67.1 (0.7)	32.8 (0.0)	43.8 (0.0)	48.4 (2.2)	87.5 (0.0)	92.2 (0.0)	96.9 (0.0)	69.0 (0.5)	64.8 (0.6)	68.1 (0.6)	80.6 (0.6)	72.9 (0.6)	66.4 (0.5)	
Nova Scotia	68.7 (0.4)	70.2 (0.7)	67.0 (0.6)	31.3 (4.7)	42.2 (7.0)	48.4 (1.6)	87.5 (0.0)	90.6 (0.0)	95.3 (0.0)	68.0 (0.5)	65.8 (0.4)	68.9 (0.5)	76.4 (0.9)	71.8 (0.4)	67.7 (0.8)	
Manitoba-English	68.6 (0.6)	70.3 (0.7)	66.9 (0.7)	29.7 (4.1)	39.1 (1.6)	45.3 (2.3)	87.5 (2.2)	92.2 (0.0)	95.3 (1.6)	67.5 (0.6)	64.9 (0.6)	70.5 (0.6)	77.3 (0.7)	72.6 (0.6)	66.8 (0.5)	
Ontario-English	67.0 (0.6)	68.6 (0.8)	65.5 (0.5)	31.3 (1.1)	42.2 (4.8)	46.9 (0.0)	85.9 (2.2)	90.6 (2.7)	95.3 (2.0)	66.4 (0.6)	63.0 (0.7)	65.8 (0.6)	73.1 (0.7)	69.8 (0.6)	64.2 (0.6)	
Manitoba-French	66.6 (0.7)	69.5 (1.1)	64.2 (0.8)	32.8 (2.2)	42.2 (2.7)	46.9 (0.0)	89.1 (0.0)	93.8 (3.1)	96.2 (0.0)	65.2 (0.8)	64.4 (0.8)	67.4 (0.7)	73.3 (0.9)	69.7 (0.8)	64.1 (0.7)	
New Brunswick-English	66.3 (0.4)	67.9 (0.5)	64.8 (0.5)	29.6 (0.3)	39.1 (0.0)	45.3 (0.0)	85.9 (0.0)	89.1 (0.0)	95.3 (3.5)	66.2 (0.4)	62.8 (0.4)	65.8 (0.5)	74.9 (0.4)	69.7 (0.4)	66.5 (0.5)	
Newfoundland	66.1 (0.5)	68.7 (0.7)	63.7 (0.6)	31.3 (0.0)	39.1 (0.0)	45.3 (0.0)	87.5 (2.2)	90.6 (0.0)	95.3 (0.0)	64.8 (0.6)	62.4 (0.5)	68.5 (0.7)	75.1 (0.6)	69.9 (0.6)	64.6 (0.5)	
Saskatchewan-French	64.8 (0.8)	66.2 (1.1)	63.4 (1.3)	32.8 (3.8)	45.3 (3.8)	50.9 (3.8)	82.8 (3.0)	87.5 (0.0)	93.8 (0.0)	63.9 (1.6)	59.8 (1.1)	67.8 (1.1)	74.4 (1.1)	62.1 (0.8)	67.0 (1.2)	
New Brunswick-French	63.6 (0.3)	64.2 (0.6)	63.1 (0.5)	29.7 (0.0)	37.5 (0.0)	43.8 (0.0)	82.8 (3.5)	87.5 (0.0)	93.8 (0.0)	62.0 (0.4)	62.2 (0.4)	64.5 (0.4)	69.0 (0.5)	63.5 (0.5)	64.1 (0.5)	
Ontario-French	60.3 (0.5)	62.2 (0.7)	58.5 (0.7)	29.0 (2.6)	37.5 (0.0)	40.6 (1.8)	81.3 (0.6)	84.4 (0.0)	92.2 (0.0)	60.7 (0.6)	56.2 (0.6)	61.2 (0.6)	68.1 (0.8)	62.1 (0.7)	58.8 (0.5)	

¹Fifteen cantons.²Schools in 14 provinces, where instruction is in Russian.³Schools where instruction is in Hebrew.⁴Nine provinces.⁵Schools where instruction is in Spanish, in all regions except Catalonia.⁶Twenty provinces and independent cities.⁷Emilia-Romagna province only.

—Data not available.

NOTE.—Standard errors appear in parentheses.

SOURCE: U.S., Department of Education, National Center for Education Statistics, International Assessment of Educational Progress, Learning Science, by Educational Testing Service. (This table was prepared February 1992.)

Table 401.—Reading literacy test scores of 9-year-olds: Selected countries, 1992

Country	Grade tested	Mean age	Overall mean score (s.e.) ¹	Narrative ² 1st quartile	Narrative ² mean score (s.e.) ¹	Narrative ² 3rd quartile	Expository ³ mean score (s.e.) ¹	Documents ⁴ mean score (s.e.) ¹
1	2	3	4	5	6	7	8	9
Finland	3	9.7	569 (3.4)	508	568 (3.0)	602	569 (3.1)	569 (4.0)
United States	4	10.0	547 (2.8)	476	553 (3.1)	619	538 (2.6)	550 (2.7)
Sweden	3	9.8	539 (2.8)	467	536 (2.6)	592	542 (2.7)	539 (3.2)
France	4	10.1	531 (4.0)	467	532 (4.1)	580	533 (4.1)	527 (3.9)
Italy	4	9.9	529 (4.3)	468	533 (4.0)	576	538 (4.0)	517 (4.9)
New Zealand	5	10.0	528 (3.3)	452	534 (3.5)	594	531 (3.1)	521 (3.3)
Norway	3	9.8	524 (2.6)	455	525 (2.8)	576	528 (2.3)	519 (2.8)
Iceland ⁵	3	9.8	518 (0.0)	448	518 (0.0)	571	517 (0.0)	519 (0.0)
Hong Kong	4	10.0	517 (3.9)	431	494 (4.1)	548	503 (3.4)	554 (4.2)
Singapore	3	9.3	515 (1.0)	450	521 (1.1)	567	519 (1.0)	504 (1.0)
Switzerland	3	9.7	511 (2.7)	438	506 (2.6)	566	507 (2.7)	522 (2.8)
Ireland	4	9.3	509 (3.6)	445	518 (3.7)	571	514 (3.2)	495 (3.8)
Belgium ⁶	4	9.8	507 (3.2)	439	510 (3.3)	558	505 (2.8)	506 (3.5)
Greece	4	9.3	504 (3.7)	447	514 (3.8)	567	511 (3.6)	488 (3.8)
Spain	4	10.0	504 (2.5)	429	497 (2.4)	543	505 (2.3)	509 (2.7)
Germany (former West)	3	9.4	503 (3.0)	421	491 (2.8)	543	497 (2.9)	520 (3.2)
Canada ⁷	3	8.9	500 (3.0)	437	502 (3.5)	566	499 (2.7)	500 (2.8)
Germany (former East)	3	9.5	499 (4.3)	414	482 (4.2)	531	493 (3.6)	522 (5.0)
Hungary	3	9.3	499 (3.1)	437	496 (2.9)	541	493 (3.1)	509 (3.5)
Slovenia	3	9.7	498 (2.6)	435	502 (2.7)	570	489 (2.5)	503 (2.5)
Netherlands	3	9.2	485 (3.6)	425	494 (3.3)	539	480 (3.4)	481 (3.9)
Cyprus	4	9.8	481 (2.3)	421	492 (2.4)	548	475 (2.3)	476 (2.1)
Portugal	4	10.4	478 (3.6)	419	483 (3.3)	531	480 (3.0)	471 (4.5)
Denmark	3	9.8	475 (3.5)	386	463 (3.4)	539	467 (3.5)	496 (3.6)
Trinidad/Tobago	4	9.6	451 (3.4)	383	455 (3.6)	502	458 (3.4)	440 (3.3)
Indonesia	4	10.8	394 (3.0)	351	402 (2.8)	436	411 (3.2)	369 (3.0)
Venezuela	4	10.1	383 (3.4)	322	378 (3.2)	426	396 (3.3)	374 (3.7)

¹s.e.=standard error.²Narrative prose is continuous text in which the writer's aim is to tell a story.³Expository prose is continuous text designed to describe factual information to the reader.⁴Documents are structured information presented in the form of charts, tables, maps, graphs, lists, or sets of instructions.⁵Iceland tested all students, therefore standard errors are not applicable.⁶Only French-speaking students were tested.⁷British Columbia only.SOURCE: International Association for the Evaluation of Educational Achievement, *How in the World Do Students Read?*, 1992. (This table was prepared April 1993.)

Table 402.—Reading literacy test scores of 14-year-olds: Selected countries, 1992

Country	Grade tested	Mean age	Overall mean score (s.e.) ¹	Narrative ² mean score (s.e.) ¹	Expository ³ 1st quartile	Expository ³ mean score (s.e.) ¹	Expository ³ 3rd quartile	Documents ⁴ mean score (s.e.) ¹
1	2	3	4	5	6	7	8	9
Finland	8	14.7	560 (2.5)	559 (2.8)	493	541 (2.2)	575	580 (2.5)
France	9	15.4	549 (4.3)	556 (4.2)	484	546 (4.3)	580	544 (4.2)
Sweden	8	14.8	546 (2.5)	556 (2.6)	469	533 (2.4)	576	550 (2.4)
New Zealand	10	15.0	545 (5.6)	547 (5.7)	457	535 (5.7)	597	552 (5.3)
Hungary	8	14.1	536 (3.3)	530 (3.1)	469	536 (3.6)	577	542 (3.2)
Iceland ⁵	8	14.8	536 (0.0)	550 (0.0)	472	548 (0.0)	617	509 (0.0)
Switzerland	8	14.9	536 (3.2)	534 (3.4)	466	525 (3.2)	572	549 (3.0)
Hong Kong	9	15.2	535 (3.7)	509 (3.7)	480	540 (3.8)	576	557 (3.8)
United States	9	15.0	535 (4.8)	539 (4.9)	456	539 (5.6)	599	528 (4.0)
Singapore	8	14.4	534 (1.1)	530 (1.1)	476	539 (1.2)	574	533 (1.1)
Slovenia	8	14.7	532 (2.3)	534 (2.6)	471	525 (2.2)	576	537 (2.2)
Germany (former East)	8	14.4	526 (3.5)	512 (3.9)	464	523 (3.5)	566	543 (2.9)
Denmark	8	14.8	525 (2.1)	517 (2.0)	458	524 (2.2)	573	532 (2.1)
Portugal	9	15.6	523 (3.1)	523 (2.5)	469	523 (3.4)	556	523 (3.4)
Canada ⁶	8	13.9	522 (3.0)	526 (3.1)	449	516 (3.1)	569	522 (2.7)
Germany (former West)	8	14.6	522 (4.4)	514 (4.9)	453	521 (4.5)	573	532 (3.9)
Norway	8	14.8	516 (2.3)	515 (2.1)	464	520 (2.4)	569	512 (2.4)
Italy	8	14.1	515 (3.4)	520 (3.6)	459	524 (3.2)	565	501 (3.3)
Netherlands	8	14.3	514 (4.9)	506 (4.8)	442	503 (4.7)	546	533 (5.3)
Ireland	9	14.5	511 (5.2)	510 (5.3)	439	505 (5.3)	555	518 (4.9)
Greece	9	14.4	509 (2.9)	526 (2.9)	450	508 (3.1)	548	493 (2.6)
Cyprus	9	14.8	497 (2.2)	516 (2.2)	427	492 (2.4)	536	482 (2.0)
Spain	8	14.2	490 (2.5)	500 (3.0)	435	495 (2.6)	536	475 (2.0)
Belgium ⁷	8	14.3	481 (4.9)	484 (5.1)	415	477 (4.8)	522	483 (4.7)
Trinidad/Tobago	9	14.4	479 (1.7)	482 (1.7)	408	485 (1.8)	537	472 (1.7)
Thailand	9	15.2	477 (6.2)	468 (6.6)	429	486 (5.9)	533	478 (6.2)
Philippines	8	14.5	430 (3.9)	421 (3.6)	378	439 (4.1)	472	430 (3.9)
Venezuela	9	15.5	417 (3.1)	407 (2.9)	381	433 (3.3)	482	412 (3.0)
Nigeria ^{8,9}	9	15.3	401 (—)	402 (—)	351	406 (—)	441	394 (—)
Zimbabwe ⁹	9	15.5	372 (3.8)	367 (3.3)	326	374 (3.6)	411	373 (4.6)
Botswana	9	14.7	330 (2.0)	340 (1.6)	294	339 (1.9)	371	312 (2.4)

¹s.e.=standard error.²Narrative prose is continuous text in which the writer's aim is to tell a story.³Expository prose is continuous text designed to describe factual information to the reader.⁴Documents are structured information presented in the form of charts, tables, maps, graphs, lists, or sets of instructions.⁵Iceland tested all students, therefore standard errors are not applicable.⁶British Columbia only.⁷Only French-speaking students were tested.⁸Insufficient data to calculate the design effect.⁹Sampling response rate of schools was below 80 percent.

—Data not available.

SOURCE: International Association for the Evaluation of Educational Achievement, *How in the World Do Students Read?*, 1992. (This table was prepared April 1993.)

**Table 403.—Number of bachelor's degree recipients per 100 persons of the theoretical age of graduation,¹ by sex:
Selected countries: 1989 to 1992**

Country	Men and women				Men				Women			
	1989	1990	1991	1992	1989	1990	1991	1992	1989	1990	1991	1992
1	2	3	4	5	6	7	8	9	10	11	12	13
Australia	20.8	—	24.4	26.3	19.3	—	21.6	22.0	22.3	—	27.3	30.8
Austria	6.7	7.8	7.8	—	7.7	8.7	8.5	—	5.6	7.0	7.0	—
Belgium	—	—	13.3	—	—	—	15.0	—	—	—	11.5	—
Canada	30.2	31.8	33.3	32.2	26.9	27.6	28.2	26.9	33.5	36.0	38.7	37.7
Denmark	12.9	15.0	22.1	16.5	11.5	13.2	14.4	17.6	14.4	16.8	18.7	26.9
Finland	—	—	—	6.5	—	—	—	7.8	—	—	—	5.2
France	13.9	14.9	16.3	—	13.8	14.7	14.9	—	14.0	15.1	17.7	—
Germany (former West)	13.2	12.9	13.3	—	16.1	15.7	15.9	—	10.1	10.0	10.6	—
Ireland	16.3	17.5	16.0	17.4	—	16.9	15.8	17.7	—	18.2	16.2	17.1
Italy	—	—	—	—	—	—	—	—	—	—	—	—
Japan	—	21.8	23.7	23.4	—	30.9	33.5	32.3	—	12.3	13.7	14.1
Netherlands	10.2	8.0	8.3	17.8	12.3	9.4	9.6	17.6	7.9	6.5	6.9	18.0
New Zealand	15.7	15.1	16.1	18.0	16.4	15.7	16.5	17.7	15.0	14.6	15.8	18.3
Norway	—	—	—	19.4	—	—	—	14.8	—	—	—	24.2
Portugal	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	8.0	—	—	—	5.8	—	—	—	10.4
Sweden	13.1	12.2	12.5	11.4	11.1	10.5	11.0	9.6	15.1	14.0	14.2	13.3
Switzerland	7.7	7.8	7.6	—	10.1	10.3	9.8	—	5.3	5.1	5.4	—
Turkey	6.3	6.5	6.5	6.0	7.9	8.2	8.2	7.4	4.7	4.7	4.7	4.4
United Kingdom	—	—	—	20.4	—	—	—	21.1	—	—	—	19.7
United States	27.8	28.1	28.1	27.4	26.1	25.9	25.3	24.7	29.6	30.5	31.0	30.3

¹In most countries the theoretical age of graduation was 22 or 23. The range was from 21 to 25. The number of bachelor's degree recipients may be of any age.

SOURCE: Organization for Economic Cooperation and Development, *Education at a Glance*. (This table was prepared July 1996.)

Table 404.—Percent of undergraduate degrees awarded in science: Selected countries, 1985, 1990, and 1991

Country	All science degrees			Natural sciences			Mathematics and computer science			Engineering		
	1985	1990	1991	1985	1990	1991	1985	1990	1991	1985	1990	1991
1	2	3	4	5	6	7	8	9	10	11	12	13
Australia	—	—	21.6	—	—	15.9	—	—	—	—	—	5.7
Austria	16.8	19.6	20.1	5.0	5.3	5.9	4.1	5.2	4.8	7.7	9.0	9.5
Belgium	14.7	—	32.2	4.6	—	4.3	1.7	—	1.7	8.4	—	26.3
Canada	17.1	16.4	15.5	4.9	6.0	5.7	4.5	4.2	3.7	7.7	6.2	6.1
Denmark	22.5	26.1	27.6	6.3	4.4	6.1	—	—	0.1	16.2	21.7	21.4
Finland	39.3	33.5	34.5	7.7	4.1	4.2	6.3	5.9	6.6	25.3	23.4	23.7
Germany (former West)	23.8	31.3	31.5	5.0	7.2	7.3	2.3	3.5	3.9	16.5	20.5	20.2
Ireland	28.8	34.1	28.5	12.8	14.1	12.4	4.0	6.3	4.4	12.0	13.7	11.6
Italy	19.5	19.7	19.8	8.1	7.6	7.5	3.1	3.9	3.8	8.3	8.3	8.5
Japan	22.7	23.5	23.5	2.4	2.4	2.4	—	—	—	20.3	21.0	21.1
Netherlands	21.8	21.1	21.4	8.5	7.1	6.5	1.2	1.6	1.6	12.1	12.4	13.3
New Zealand	20.5	19.5	16.3	11.7	8.2	7.1	5.5	5.5	4.0	3.3	5.8	5.2
Norway	6.1	12.9	12.3	2.5	2.1	1.8	1.8	0.6	0.6	1.8	10.2	9.9
Portugal	—	24.3	—	6.5	6.7	—	7.0	—	—	10.5	—	—
Spain	13.9	15.0	15.4	5.5	5.7	5.3	1.3	2.6	2.9	7.0	6.7	7.1
Sweden	15.4	24.0	24.3	2.6	4.1	4.2	1.6	4.7	4.9	11.3	15.2	15.2
Switzerland	20.2	23.0	22.7	10.3	11.2	11.0	2.1	3.7	3.8	7.9	8.1	7.9
Turkey	23.0	20.6	21.3	3.6	4.6	4.9	1.6	2.1	2.3	17.8	13.8	14.1
United States	21.7	16.9	15.9	6.3	5.1	5.1	5.5	4.0	3.6	9.8	7.8	7.2

—Data not available.

SOURCE: Organization for Economic Cooperation and Development, unpublished data. (This table was prepared May 1995.)

Table 405.—Percent of graduate degrees awarded in science: Selected countries, 1985, 1990, and 1991

Country	All science degrees			Natural sciences			Mathematics and computer science			Engineering		
	1985	1990	1991	1985	1990	1991	1985	1990	1991	1985	1990	1991
							1985	1990	1991			
1	2	3	4	5	6	7	8	9	10	11	12	13
Australia	—	—	13.9	—	—	9.6	—	—	—	—	—	4.3
Austria	43.3	37.7	37.4	14.2	12.3	13.4	7.3	4.6	6.1	21.7	20.8	17.9
Canada	19.7	20.0	19.7	7.5	7.8	7.7	2.8	3.4	3.4	9.4	8.8	8.7
Denmark	16.0	22.2	22.9	4.1	5.8	5.4	2.7	4.8	4.5	9.2	11.6	13.0
Finland	47.6	30.6	29.2	24.0	14.7	12.4	6.3	5.4	4.6	17.2	10.5	12.2
Germany (former West)	27.7	33.2	33.9	18.7	23.5	23.3	1.8	2.3	2.2	7.2	7.4	8.4
Ireland	31.4	34.5	28.4	18.9	19.5	15.7	2.6	5.8	4.1	9.9	9.3	8.6
Japan	50.1	54.6	54.2	9.5	9.5	9.5	—	—	—	40.5	45.1	44.7
Netherlands	—	28.9	29.9	20.6	17.7	16.7	—	1.5	1.6	7.5	9.7	11.6
New Zealand	45.1	22.6	19.3	24.6	13.8	11.5	5.4	4.7	3.6	15.1	4.0	4.2
Norway	40.1	33.4	33.8	17.9	8.0	7.9	3.5	2.1	2.5	18.7	23.3	23.4
Spain	35.6	26.9	26.6	28.6	19.7	19.1	1.8	1.4	2.5	5.1	5.7	5.0
Sweden	48.0	48.5	44.4	21.2	19.4	15.1	6.8	9.2	8.2	20.0	19.9	21.1
Switzerland	30.7	30.2	32.6	20.3	22.0	23.1	2.8	1.7	1.8	7.6	6.5	7.6
Turkey	35.8	24.0	21.7	6.6	7.6	6.4	2.8	3.3	2.8	26.3	13.2	12.4
United States	13.5	14.5	13.8	4.5	4.2	3.8	2.8	3.4	3.2	6.3	6.9	6.7

—Data not available.

SOURCE: Organization for Economic Cooperation and Development, unpublished data. (This table was prepared May 1995.)

**Table 406.—Public education expenditures per student, by level of student:
Selected countries, 1985 to 1992**

[In constant 1992 dollars]

Country	Primary				Secondary				Higher education			
	1985	1990	1991	1992	1985	1990	1991	1992	1985	1990	1991	1992
1	2	3	4	5	6	7	8	9	10	11	12	13
Austria	\$3,451	\$3,526	\$3,681	\$4,010	\$3,943	\$4,632	\$4,821	\$6,420	\$6,557	\$6,369	\$6,635	\$5,820
Belgium	2,232	2,131	2,206	2,390	5,279	4,805	5,151	5,150	7,098	6,178	6,423	6,590
Denmark	3,570	4,446	4,529	4,220	5,045	5,301	5,540	4,940	8,570	8,332	7,916	6,710
France	—	—	2,669	2,900	—	—	4,780	5,430	—	—	4,903	6,020
Germany	—	—	—	2,980	—	—	—	4,260	—	—	—	—
Japan	—	—	—	3,530	—	—	—	3,900	—	—	—	11,850
Ireland	1,323	1,429	1,588	1,770	2,277	2,403	2,563	2,770	5,173	5,527	5,755	7,270
Norway	3,404	3,878	4,002	4,480	4,817	5,153	5,538	6,200	7,857	8,629	8,658	8,720
Portugal	1,330	1,931	2,174	—	1,759	—	2,435	—	3,732	—	6,346	—
Spain	1,439	1,800	1,917	2,030	1,998	2,706	2,812	3,140	1,907	3,156	3,340	3,770
Sweden ¹	—	5,271	5,635	4,840	—	6,292	6,835	6,050	—	8,669	8,819	7,120
Switzerland ¹	—	—	5,611	3,560	—	—	6,761	—	—	—	15,124	12,900
Turkey	—	—	582	—	—	—	519	—	—	—	2,879	—
United Kingdom	2,336	2,897	2,878	3,120	3,864	5,499	4,383	4,390	—	—	9,911	10,370
United States	4,364	5,223	5,333	5,600	5,282	6,546	6,667	6,470	10,221	12,013	12,157	11,880

¹Change in definition in 1992.

—Data not available.

SOURCE: Organization for Economic Cooperation and Development, *Education at a Glance*, and unpublished data. (This table was prepared May 1995.)

NOTE.—Data adjusted to U.S. dollars using the purchasing power parity (PPP) index.

Table 407.—Public expenditures for education as a percentage of gross domestic product: Selected countries, 1985 to 1992

Country	All levels							Primary education							Secondary education							Higher education							
	1985	1987	1988	1989	1990	1991	1992	1985	1987	1988	1989	1990	1991	1985	1987	1988	1989	1990	1991	1985	1987	1988	1989	1990	1991	1991	1992		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27			
Australia	6.0	5.6	5.5	—	—	4.6	4.5	1.8	1.6	1.6	1.6	—	—	1.5	2.1	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8		
Austria	5.7	5.7	5.5	5.3	5.2	5.4	—	1.0	1.0	1.0	1.0	0.9	0.9	1.0	2.8	2.8	2.7	2.6	2.5	2.5	2.6	2.5	2.5	2.6	2.6	2.6	2.6		
Belgium	6.4	5.9	5.6	5.7	5.2	—	—	1.1	1.0	1.0	1.0	0.9	0.9	1.0	2.6	2.6	2.5	2.5	2.5	2.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	
Denmark	6.2	6.2	6.4	6.4	6.2	6.1	6.2	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.8	2.9	2.9	2.9	2.9	2.9	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	
Germany (former West)	4.6	4.4	4.3	—	—	4.1	3.7	0.6	0.6	0.6	0.6	—	—	0.5	2.2	2.1	2.0	2.0	—	—	1.9	1.0	1.0	1.0	—	—	—	—	
Ireland	5.9	6.2	5.6	5.3	5.2	5.4	5.7	1.7	1.8	1.6	1.6	1.5	1.6	1.6	2.4	2.5	2.5	2.5	2.3	2.3	2.2	2.2	2.2	2.1	2.2	2.1	2.2	2.1	
Italy	4.7	4.8	4.9	5.0	5.0	5.2	—	1.2	1.1	1.1	1.1	1.2	1.1	1.1	—	2.0	2.0	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Japan	—	—	—	—	—	—	—	3.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Luxembourg	—	6.0	6.0	5.8	—	—	—	—	—	—	2.1	2.1	2.0	—	—	—	—	—	—	—	2.5	2.4	—	—	—	—	—	—	
New Zealand	—	5.3	5.2	6.3	—	5.8	—	—	1.5	1.4	1.4	1.7	—	1.5	—	1.3	1.2	1.2	1.5	—	1.3	—	—	—	—	—	—	—	
Norway	5.6	6.2	6.4	6.5	6.4	6.8	—	1.7	1.9	1.9	1.8	1.6	1.7	1.7	—	2.7	2.8	2.8	2.9	2.8	2.7	2.8	2.8	2.7	2.8	2.8	2.8	2.8	
Portugal	—	4.3	4.8	4.8	5.2	5.5	5.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	—	1.2	1.3	1.4	1.4	1.6	1.6	2.0	2.0	2.0	0.6	0.7	0.8	0.9	
Spain	3.6	3.7	3.9	4.2	4.4	4.5	4.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	—	1.8	1.9	2.1	2.1	2.1	2.1	2.3	2.2	2.3	0.5	0.6	0.6	0.9	
Sweden	—	6.0	5.9	5.5	5.7	6.1	6.7	—	2.2	2.2	2.0	2.0	2.0	2.0	—	0.0	0.7	2.5	2.5	2.4	2.4	2.5	2.7	2.5	2.7	2.5	2.7	2.5	2.7
Switzerland	5.1	5.0	5.1	—	—	5.4	—	2.9	2.8	2.8	—	—	—	—	—	1.4	1.3	1.2	1.2	1.3	—	—	—	—	—	—	—	—	
Turkey	—	—	—	—	—	4.0	—	—	—	—	—	—	—	—	—	—	1.9	—	—	—	—	—	—	—	—	—	—	—	—
United Kingdom	—	—	—	—	—	—	—	4.1	1.2	1.3	1.3	1.3	1.3	1.3	—	2.2	2.3	2.3	2.3	2.2	2.2	2.3	2.3	2.2	1.1	1.0	0.9	0.9	
United States	—	—	—	—	—	5.7	1.5	1.6	1.7	1.8	1.8	1.8	1.8	1.8	—	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.3	1.4	1.2	1.5	1.6	

—Data not available.

SOURCE: Organization for Economic Cooperation and Development, unpublished data. (This table was prepared May 1995.)

Table 408.—Foreign students enrolled in institutions of higher education in the United States and outlying areas, by continent, region, and selected countries of origin: 1980–81 to 1994–95

Continent, region, and country	1980–81		1985–86		1989–90		1990–91		1991–92		1992–93		1993–94		1994–95	
	Number	Percent														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Total	311,880	100.0	343,780	100.0	386,850	100.0	407,530	100.0	419,590	100.0	438,620	100.0	449,704	100.0	452,635	100.0
Africa	38,180	12.2	34,190	9.9	24,570	6.4	23,800	5.8	21,900	5.2	20,520	4.7	20,569	4.6	20,724	4.6
Eastern Africa	6,260	2.0	6,730	2.0	7,330	1.9	7,590	1.9	7,040	1.7	6,950	1.6	7,093	1.6	7,139	1.6
Central Africa	1,130	0.4	1,540	0.4	1,800	0.5	1,650	0.4	1,690	0.4	1,470	0.3	1,472	0.3	1,430	0.3
North Africa	7,310	2.3	5,980	1.7	4,740	1.2	4,540	1.1	4,090	1.0	3,730	0.9	3,614	0.8	3,522	0.8
Southern Africa	1,480	0.5	2,360	0.7	2,750	0.7	2,840	0.7	2,660	0.6	2,560	0.6	2,563	0.6	2,672	0.6
West Africa	22,000	7.1	17,580	5.1	7,950	2.1	7,180	1.8	6,400	1.5	5,800	1.3	5,804	1.3	5,943	1.3
Nigeria	17,350	5.6	13,710	4.0	4,480	1.2	3,710	0.9	3,160	0.8	2,490	0.6	2,285	0.5	2,147	0.5
Europe	25,330	8.1	34,310	10.0	46,040	11.9	49,640	12.2	53,710	12.8	58,010	13.2	62,442	13.9	64,811	14.3
Eastern Europe	1,670	0.5	1,770	0.5	3,360	0.9	4,780	1.2	6,890	1.6	9,800	2.2	12,929	2.9	15,906	3.5
Western Europe	23,660	7.6	32,540	9.5	42,680	11.0	44,860	11.0	46,820	11.2	48,210	11.0	49,496	11.0	48,905	10.8
France	—	—	3,680	1.1	5,340	1.4	5,630	1.4	5,580	1.3	5,660	1.3	5,976	1.3	5,843	1.3
Germany, Federal Republic of ¹	3,310	1.1	4,730	1.4	6,750	1.7	7,000	1.7	7,570	1.8	7,880	1.8	8,508	1.9	8,592	1.9
Greece	3,750	1.2	4,440	1.3	4,430	1.1	4,360	1.1	4,490	1.1	4,350	1.0	4,144	0.9	3,699	0.8
Spain	—	—	1,740	0.5	3,640	0.9	4,300	1.1	4,590	1.1	5,160	1.2	5,246	1.2	5,126	1.1
United Kingdom	4,440	1.4	5,940	1.7	7,100	1.8	7,300	1.8	7,470	1.8	7,630	1.7	7,828	1.7	7,786	1.7
Latin America	49,810	16.0	45,480	13.2	48,090	12.4	47,580	11.7	43,200	10.3	43,250	9.9	45,246	10.1	47,239	10.4
Caribbean	10,650	3.4	11,100	3.2	12,580	3.3	12,610	3.1	11,120	2.7	10,270	2.3	10,672	2.4	11,286	2.5
Central America	12,970	4.2	12,740	3.7	16,540	4.3	15,950	3.9	12,820	3.1	13,460	3.1	13,886	3.1	14,923	3.3
Mexico	6,730	2.2	5,460	1.6	6,540	1.7	6,740	1.7	6,650	1.6	7,580	1.7	8,021	1.8	9,003	2.0
South America	26,190	8.4	21,640	6.3	18,970	4.9	19,020	4.7	19,250	4.6	19,530	4.5	20,708	4.6	21,030	4.6
Brazil	—	—	2,840	0.8	3,730	1.0	3,900	1.0	4,260	1.0	4,540	1.0	4,977	1.1	5,017	1.1
Colombia	—	—	4,010	1.2	3,320	0.9	3,180	0.8	2,930	0.7	2,850	0.6	3,077	0.7	3,208	0.7
Venezuela	11,750	3.8	7,040	2.0	2,740	0.7	2,890	0.7	3,130	0.7	3,440	0.8	3,742	0.8	4,092	0.9
Middle East	84,710	27.2	52,720	15.3	37,330	9.6	33,420	8.2	31,210	7.4	30,240	6.9	29,509	6.6	30,246	6.7
Iran	47,550	15.2	14,210	4.1	7,440	1.9	6,260	1.5	4,930	1.2	4,090	0.9	3,621	0.8	2,896	0.6
Jordan	6,140	2.0	6,590	1.9	5,250	1.4	4,320	1.1	3,700	0.9	3,260	0.7	2,826	0.6	2,431	0.5
Lebanon	6,770	2.2	7,090	2.1	4,450	1.2	3,900	1.0	3,080	0.7	2,540	0.6	2,165	0.5	1,835	0.4
Saudi Arabia	10,440	3.3	6,900	2.0	4,110	1.1	3,590	0.9	3,550	0.8	3,750	0.9	3,721	0.8	4,075	0.9
Turkey	—	—	2,460	0.7	3,400	0.9	4,080	1.0	4,560	1.1	4,980	1.1	5,474	1.2	6,716	1.5
North America ²	14,790	4.7	16,030	4.7	18,590	4.8	18,950	4.6	19,780	4.7	21,550	4.9	23,288	5.2	23,394	5.2
Canada	14,320	4.6	15,410	4.5	17,870	4.6	18,350	4.5	19,190	4.6	20,970	4.8	22,655	5.0	22,747	5.0
Oceania	4,180	1.3	4,030	1.2	4,010	1.0	4,230	1.0	3,870	0.9	4,300	1.0	3,857	0.9	4,327	1.0
South and East Asia	94,640	30.3	156,830	45.6	208,110	53.8	229,830	56.4	245,810	58.6	260,670	59.4	264,693	58.9	261,789	57.8
East Asia	51,650	16.6	80,720	23.5	127,320	32.9	146,020	35.8	158,490	37.8	168,410	38.4	171,279	38.1	168,190	37.2
China	2,770	0.9	13,980	4.1	33,390	8.6	39,600	9.7	42,940	10.2	45,130	10.3	44,381	9.9	39,403	8.7
Hong Kong	9,660	3.1	10,710	3.1	11,230	2.9	12,630	3.1	13,190	3.1	14,020	3.2	13,752	3.1	12,935	2.9
Japan	13,500	4.3	13,360	3.9	29,840	7.7	36,610	9.0	40,700	9.7	42,840	9.8	43,770	9.7	45,276	10.0
Korea, Republic of	6,150	2.0	18,660	5.4	21,710	5.6	23,360	5.7	25,720	6.1	28,520	6.5	31,076	6.9	33,599	7.4
Taiwan	19,460	6.2	23,770	6.9	30,960	8.0	33,530	8.2	35,550	8.5	37,430	8.5	37,581	8.4	36,407	8.0
South Central Asia	14,540	4.7	25,800	7.5	38,840	10.0	42,370	10.4	46,810	11.2	50,430	11.5	48,941	10.9	47,836	10.6
India	9,250	3.0	16,070	4.7	26,240	6.8	28,860	7.1	32,530	7.8	35,950	8.2	34,796	7.7	33,537	7.4
Pakistan	2,990	1.0	5,440	1.6	7,070	1.8	7,730	1.9	8,120	1.9	8,020	1.8	7,299	1.6	6,989	1.5
South East Asia	28,450	9.1	50,310	14.6	41,950	10.8	41,440	10.2	40,510	9.7	41,830	9.5	44,461	9.9	45,763	10.1
Indonesia	3,250	1.0	8,210	2.4	9,390	2.4	9,520	2.3	10,250	2.4	10,920	2.5	11,744	2.6	11,872	2.6
Malaysia	6,010	1.9	23,020	6.7	14,110	3.6	13,610	3.3	12,650	3.0	12,660	2.9	13,718	3.1	13,617	3.0
Philippines	—	—	3,920	1.1	4,540	1.2	4,270	1.0	3,950	0.9	3,700	0.8	3,528	0.8	3,472	0.8
Singapore	—	—	3,930	1.1	4,440	1.1	4,500	1.1	4,760	1.1	4,860	1.1	4,823	1.1	4,473	1.0
Thailand	6,550	2.1	6,940	2.0	6,630	1.7	7,090	1.7	7,690	1.8	8,630	2.0	9,537	2.1	10,889	2.4
Stateless ³	240	0.1	190	0.1	110	(4)	80	(4)	120	(4)	80	(4)	100	(4)	105	(4)

¹ 1990–91 and later years data are for Germany, which includes the former Federal Republic of Germany and the former Democratic Republic of Germany.

² Excludes Mexico and Central America, which are included with Latin America.

³ Home country unknown or undeclared.

⁴ Less than .05 percent.

—Data not available.

NOTE.—Data are for "nonimmigrants," i.e., students who have not migrated to this country. Because of rounding, details may not add to totals.

SOURCE: Institute of International Education, *Open Doors*, various years; and unpublished data. (Latest edition copyright © 1995 by the Institute of International Education. All rights reserved.) (This table was prepared April 1996.)